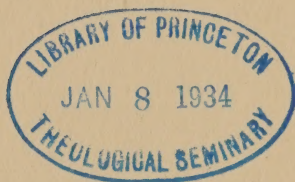


THE INADEQUACY OF EVOLUTION

Chester K. Lehman



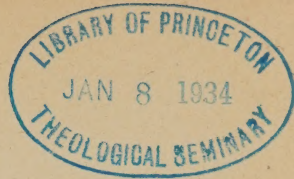
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The inadequacy of evolution
as a world view

THE INADEQUACY OF EVOLUTION



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**The
Inadequacy of Evolution
As a World View**

✓
By CHESTER K. LEHMAN, A. M., Th. B.
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To my dear Mother,

Now fourscore years of age, whose life
has ever been a testimony to the Truth
as revealed in the Bible,

This Book is affectionately dedicated.

YOUR ATTENTION JUST A MINUTE

Perhaps the heaviest blow that can be given to a scientific hypothesis or a philosophical proposition is to show that it is inadequate; that it fails to explain some of the major facts. The author of this book deals that kind of a blow to the theory of evolution. He shows that it fails dismally to give a sufficient basis for a World View. This count against the theory is all the more serious when it is remembered that evolution is not a matter of pure empirical science, but is, rather, a philosophy.

Our author demonstrates two facts regarding evolution in this volume: he shows that as a philosophy it is not adequate to explain the universe; that is the first point; and the second is that it falls far short of being validated by the scientific process. The latter point means that, when the realm of nature is studied just as it is, without preconceived notions, it is not constituted in such a way as to agree with the inferences drawn by the devotees of the evolutionary theory.

Of the books recently published in criticism of evolution, I consider Professor Lehman's as standing in the front rank. His way of putting his argument is interesting and forceful. You will not find his book dull reading. It is sufficiently technical to reveal the author's scientific knowledge and training, and yet not so technical as to frighten away the general reader who is interested in actual results rather than scientific speculations. It was both a pleasure and a privilege

to read the author's manuscript, and strongly to urge him to seek a good publisher to bring it out in book form.

Leander S. Keyser.

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Springfield, Ohio.

PREFACE

Reflection upon the progress of my thinking during my later school career causes me to observe four contacts with the theory of evolution, in which I came to learn and appreciate a most important principle that should be the touchstone in all scientific inquiry. The first contact was made in a Normal School zoölogy class in which the professor, a theistic evolutionist, told us that evolution gives one a bigger, grander, and more scientific view of God and of the origin of the universe. According to his view, evolution was God's method of creation.

Having been instructed from my youth to believe in the old-fashioned Biblical view of creation, I almost intuitively realized that a literal interpretation of Genesis excluded even theistic evolution. In spite of the jests of my classmates at my failure to accept this new teaching and my impertinence in asking questions, I felt that *facts* ought to be forthcoming to substantiate the evolutionary theory. My faith in the truth of the Bible sustained me through this period, but I lacked evidence to support it. In my mind lurked this question: Are there facts to support the traditional view?

This tentative conclusion remained in my mind for several years, until I continued school work in college. Hearing that the professor of Biology in the college I chose was an anti-evolutionist, I was eager to continue my scientific studies under his instruction. A unique

PREFACE

surprise awaited me. It was my confident expectation that he would pace the floor of the lecture-room, delivering lecture after lecture against the "awful theory of evolution" so as "to safeguard the students against its pernicious influence." I expected him to lay before us every shred of argument against this "devilish doctrine." But that was not his method. We were, first of all, sent to the laboratory. Day after day we studied the cell. Though microscopic animals were given especial attention, we also studied typical forms of invertebrate life. Laboratory periods were interspersed with lectures on these animals, while I wondered, "Will no anti-evolutionary lectures be given? Surely he will open fire on it sometime."

Week after week passed, but no lectures of that kind were delivered. At last I began to understand the method he was pursuing. It was not by polemical lectures and by skilled dialectics that he was guiding our thinking, but, rather, by means of the laboratory findings he led us out into real scientific research. Theories were not mentioned. It was facts, *facts*, FACTS from beginning to end.

Then it dawned on me that the truth or falsity of evolution is to be determined, not by mere dint of argument, but solely on the plane of *evidence*. I began to search in the writings of scientists for the *evidences* of evolution. It was my conviction that these so-called evidences must be closely scrutinized in view of the facts against evolution piled up by our professor. I have never ceased to marvel at the quiet way in which he produced facts upon facts which, it seemed to me, proved evolution unscientific.

PREFACE

This method of depending upon facts and evidence made an indelible impression on my mind. When at a later date graduate studies in Sociology were pursued, theories were scrutinized on this same basis of facts. To my amazement I found that much of the material of sociology had no foundation whatever in the researches of true science. Later, while pursuing theological studies, a still more acute test was made of this method. There was the record of a supernatural revelation, the record of the miraculous, of prophecy, of the God-man—all these contained in a remarkable Book. Are they true, or are they false? Then I realized that the evolutionary theory was the foundation of the thinking of those who denied their truth. I was face to face with the crucial test of the method of evidence.

Already trained to appreciate the value and necessity of testing all things by this method, I grappled with this most important of inquiries. The evidences of Christianity became a study of absorbing interest to me. Surely, if God at a certain time and place broke the silence of the ages and spoke to man, His message must be supremely important; there must be adequate evidence for His having done so. I soon realized that there is a body of available facts to be dealt with, just as there is in biological science. Weighing these facts with the same scrutiny and care as I did the facts in biological science, I concluded that they were adequate and conclusive in favor of divine revelation. This was the supreme test of the method, and, I may add, the supreme triumph of the same. Upon this method alone can real scientific progress be made, whether bio-

THE INADEQUACY OF EVOLUTION

logical or theological. The law of evidence, then, is my guiding principle in this work.

To several of my colleagues of the faculty of the institution in which it is my privilege to serve, as well as to other friends, it gives me pleasure to acknowledge my indebtedness for their kindness in reading the manuscript and for the helpful suggestions offered towards its improvement. I gratefully acknowledge here my obligation to Dr. Leander S. Keyser of the Hamma Divinity School, Springfield, Ohio, for the strong encouragement given me when this work was first undertaken, for the many suggestions made while the study was in progress, for the valuable criticisms offered on the completed work, and finally, for honoring my labors by writing the Introduction.

Chester K. Lehman.

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Chapter I

METHOD OF APPROACH

The most prominent landmark of scientific study during the nineteenth century is the formulation of the theory of biological evolution by Charles Darwin. The history of this theory from that day to this is full of interest from many points of view; but probably the point of absorbing attention is its growing influence, its storm-like advance upon all of our thinking to the extent of its claiming the right of being the foundation principle of the world-view of things. At first the theory was only a passing view held by radical biological scientists, but soon men realized that, if it be true, it necessarily must revolutionize the entire science of biology. The forms of life are to be viewed, not as fixed species, but as being in a never-ending flux, change, and evolution. It was through the application of evolution to geology that the "ages" were determined, and thus this study was reduced to a scientific basis. Indeed, evolution seemed to receive its greatest verification from the fossils in the rocks. Soon it was observed that, not only is this world tuned to this idea, but that the world, even the universe, came and are still coming into being by the process of "gradual development." Astronomy then must be reorganized to march to the music of this modern thought.

Coming back to this earth, it was evolution that gave rise to the new science of sociology and has ever

been its mainspring. Primitive man was a brute, and the great institutions of mankind developed slowly as man raised himself above his hairy ancestry. Likewise, history was recast into its mold. This noble discipline is no longer a story of mankind with the incarnation of Jesus as its pivotal event. It has become a scheme of advancement with democracy and the ever-widening achievement of *man* as its goal. Ethics and psychology must be revamped; for the soul and conscience cannot be found by the dissecting experimental psychologists. A change took place in religion also. It used to be God's speaking to men, now it is man's feeling for God. In short, evolution contends for the supreme place in our thinking. It would place itself upon the throne as the true world-view of things—the all-comprehensive thought that unifies the universe.

This ascent of evolution to the throne presents a unique problem; it is distinctive in that it is the first aspirant to the world-view of things that has its basis in science. The load it carries is tremendous; but are not facts able to carry an infinite load? Why, then, is all this revamping and reorganizing of our thinking necessary? Has mankind, in its thinking, run off on a tangent for the past two thousand years or more, and is it at last being brought back to its true course by scientific achievement? Surely rational beings ought to be willing to be guided by facts. Facts must influence even our philosophy and religion. Our most cherished hopes and faith must be shattered if there are facts available which oppose and refute them. It is precisely this that makes the problem unique. For thousands of years there has been a group of thinkers who have entertained exalted ideas of God and of the uni-

verse; they held sublime hopes and had a deep faith in immortality. Are all these convictions and hopes vain, since the alleged facts of evolution involve and challenge their very foundation?

This seeming antagonism between science and religion has led some to doubt whether a synthetic view of the world is possible. Is it thinkable that evolutionary science can continue in its way and be true, and at the same time a group of thinkers entertain certain religious ideas rendered impossible by science, and they also be on the way of truth? It is the deep-seated conviction of the author that there is a profound harmony in all things and that, therefore, a world-view is possible. To admit such an antagonism between two truths is to affirm that this world is in hopeless chaos, that all search for truth is futile, all thinking banished. A choice must be made between a governor of the universe or the crushing dictum of fate. Law and order in all things exist, or else all things came by chance. We conclude then that a reëxamination of the whole question is necessary. The foundations of evolution and the foundations of Christian belief, both should be scrutinized. Truth will bear the closest investigation, and with open mind we should accept the truth.

How, then, is the true world-view of things to be reached? How can one test an aspirant to the supreme place in one's thinking? Manifestly, a sure method is to measure a given theory in every department of our thinking, test it by all our knowledge, and if it is sufficiently comprehensive to unify and account for all things in the realm of man's knowledge; then certainly the desired truth is ascertained.

It is convenient to divide our thinking into three compartments, each of which contains well-authenticated facts, or accepted truths. These realms are science, philosophy, and religion. In science the pertinent question is: Is a theory in accord with well-authenticated facts of one's experience? Philosophy asks: Does it satisfy the heart? It is the author's belief that the religious interrogation is: Does it harmonize with revealed Truth?

On these compartments of our thinking a few explanatory remarks are in order: First, as to the question of science. The great achievements of science have been wrought by the accurate and painstaking observation of things in nature. An advance is made only when no error creeps in to wreck the supposed clue to knowledge. What then constitutes the test of science? Is the theory in accord with fully attested facts? It is futile to attempt an enumeration of all the facts that have their bearing upon the establishment of fundamental truths. The following classes of facts are merely suggestive of the tremendous range of knowledge that is known to man and to which a given theory must be in harmony: (1) from biological science—the meaning of life, the fundamental likenesses and differences between the animal and plant kingdoms, the similarities and dissimilarities of structure among animals and plants, extent, degree, and nature of variations between parent and offspring, nature of embryonic development, fundamental likenesses and differences between man and animals, modes of self-protection and preservation, etc., etc.; (2) from geological science—the nature of the earth's structure, dynamic forces, the fossils, age of rocks, etc., etc.; (3) from

astronomy—the plan of the universe, inter-relations of the worlds, composition of the stars, etc., etc.; (4) from physics and chemistry—the nature of force, matter and elements, physical and chemical laws, inter-relations of physical, chemical and biological realms; (5) from social sciences—remains of primitive man, intellectual attainments of the peoples of the world, historical development of nations, etc., etc.; (6) from religion—the origin, development, peculiar claims, beliefs, effects upon adherents, etc., etc., of the historic religions.

Through this mass of facts a given theory must run the gauntlet. If it escapes untouched by any point of scientific knowledge, the theory's scientific foundation is sure, and it can be passed to the other realms of thought for inspection.

The test of philosophy differs from that of science. In this department of thinking the test is not the observation of facts from the sensory world—philosophy strikes its roots deeper. Putting the matter crudely, yet fundamentally, a theory is sound philosophically when it convinces the heart. The inmost longings and the deep-seated convictions of the soul must be satisfied. Dr. Hibbens thus explains its domain: "The problems of philosophy are, in fact, the problems of life, the burden and the mystery of existence, the origin and the destiny of man, the relations which he sustains to the world of which he is a part, and to the unseen universe which lies round about him."¹

What answer does the theory of evolution give to

¹ *The Problems of Philosophy*, p. 3.

these pertinent questions? If to such problems as the relation of mind and matter, the origin of the universe, the existence and nature of God, His relation to the universe, the origin, nature, and destiny of man, the ground of right and wrong, and the fact of conscience, evolutionary thought gives an answer which carries conviction to the heart, then, philosophically, evolution is sound.

There are those who may question the validity of the third and last test—revealed religion. It shall be my purpose in a later chapter briefly to adduce reasons for accepting Christianity as the final religion which has been divinely revealed. It will suffice to state here that it is my deepest conviction that God did break the silence of the ages and speak to mankind; that what He spoke is infallible and authoritative, and that the Bible is this special revelation. This being true, the final word on many of the profound questions at stake is given. If evolution squares up with the spoken Word of the God of the heavens, its truth is beyond question.

If, then, the theory of evolution satisfies our scientific sense, our philosophic intuition, and the revealed Word of God, it rightfully deserves to be assigned the place of the true world-view of things. Accordingly, this threefold test determines the method of treatment. Six chapters will be devoted to an analysis of the scientific grounds for evolution. A chapter on "The Philosophy of Evolution" will show its status in the important realm of philosophy. Another chapter will be occupied with the preëminent subject, "The Religion of Evolution." A concluding chapter will give an outline of the Christian World View.

Chapter II

THE MEANING OF EVOLUTION

EVOLUTION DEFINED

Evolution may be defined as a process of becoming—a developing, an unfolding, or a progress from the simple to the complex. This is a general definition, based upon its etymology, and, according to this conception of the word, it may mean the development of an embryo to the adult stage, the development of a seed to the full grown plant, the progress of the English Constitution, the transformation of the steam locomotive, the growth of an educational system—all these are evolutions in this broad non-technical sense. The thought in all of these cases has to do with growth, progress, and development, irrespective of the cause that has produced the change.

In science, however, this word is a technical term, so that, when the expressions “theory of evolution” and “doctrine of evolution” are used, the technical sense is to be understood. Le Conte states it thus: “Evolution is continuous, progressive change, according to certain laws, and by means of resident forces.”¹

This definition has three distinct ideas. In the first place, we have the thought of change, continuous and progressive. It involves a fundamental view of

¹ *Evolution and Its Relation to Religious Thought*, p. 8.

life forms. Evolution holds that all life is in a flux. The ancestors of the cats, for instance, millions of generations ago, were not cats, but some simple cat-like mammals which were not cats. Man's descent is traced from some ape-like animal which was not a man. In other words, what we regard as species, such as dogs, cats, mankind, elephants, etc., are not fixed, stable, and permanent forms of life, but are the passing forms of a changing stream of life. In millions of generations each of these will have changed to some other kind of animal. The dog will no longer be a dog; he may lose his tail, or one or more of his toes may be lopped off, as is claimed for the horse. He may develop to a stage of higher intelligence, conceivably to that attained by man at the present time. As for man, in a million generations he may have super-reasoning powers, he may lose his arms, hair, toes, fingers, and develop a still larger head; he may develop some new characteristic.

The second thought in this definition is that of growth *according to certain laws*. These laws have never been stated, and scientists are still attempting to discover them. Their search at the present is concerned with heredity and genetics, with the view of discovering laws of variation and how these supposed variations are made permanent.

The most important part of this definition concerns the seat of the mechanism that, according to certain laws, produces continuous progressive change. According to Le Conte and evolutionists in general, *resident* forces produce the change. What these so-called resident forces are, no one knows. They are conceived to be some cosmic energy that inheres in

every speck and particle of material substance, whether inanimate or animate. This force, under certain favorable conditions of heat, pressure, light, etc., is supposed to change the lifeless into simple life forms, the simple life forms into the more complex ones, the more complex ones into the most complex, such as man, and so on *ad infinitum*.

THE IDEA OF EVOLUTION ILLUSTRATED

The idea of evolution is illustrated by the commonly-used systems of classification of plants and animals. These systems form two genealogical trees, one of plants and the other of animals, whose trunks represent the original one-celled plants and animals respectively, and whose branches represent their lineal descendants, the plants and animals now in existence being represented by the outermost twigs. In other words, the fundamental likenesses among plants and among animals mean genetic kinship; hence, the greater the similarity, the nearer the relationship. To make this point still clearer, I shall go into more detail in the animal kingdom. From a theoretical point of view the plant kingdom could be used as well, but botanists are in a quandary as to the construction of the genealogical tree for plants—a fact needing to be investigated—while there is more unanimity among zoologists as to the family tree of animals.

I begin with the trunk made up of the simplest animals of only one cell, the first form of life to appear on this globe, the Protozoa. From these primitive forms all higher types are believed to have evolved by “continuous, progressive changes, according to certain laws, and by means of resident forces.” Zo-

ölogists, in general, group all other animals into nine other great classes called phyla (singular, phylum.), each class possessing distinct likenesses and hence to be considered as near relatives. After millions of years, some of these Protozoa developed into animals slightly more complex, whose body was made up of many cells, having many openings or pores, and reproducing, not by simple division as among the Protozoa, but by sexual and asexual methods. The remnants of this class, which did not evolve any further, are called Porifera, commonly known as sponges. Why some of these Protozoa evolved, while the great majority remained stable throughout the succeeding stages of evolution, is unknown. How the first animal that ever existed acquired the power of reproduction is unknown. In like manner, the origin of the new form of reproduction remains a mystery.

Millions of years again elapsed, and through gradual development, another new form of life evolved whose chief characteristic is the possession of a gastrovascular cavity which marks a distinct advance over the sponges. The remnants of this class make up the third Phylum, the Coelenterata, including the fresh-water polyps, jelly-fishes, and sea anemones. Why the great majority of Coelenterates reproduced through all the succeeding ages without modification is a problem unanswered by science.

Again, millions of years, more or less, passed by, and from some of these forms another type of life made its appearance. Some of these show an advance over the Coelenterates in possessing a well-developed nervous system, the origin of which is not known. The representatives of this class persisting at the present

time are the flat worms, such as the Planaria, Liver-fluke, and Tapeworm, grouped under Phylum Platyhelminthes.

As time wore on, round worms appeared showing greater complexity of structure as to digestion, excretion, sensation, reproduction, etc. The survivors of this stage are the Nemathelminthes, such as the vinegar eel and Trichinella.

"There are a number of groups of animals whose relationships are so difficult to determine that authorities do not agree as regards their position in the animal series."² This also is an anomaly of science, but we shall reserve its discussion for a later chapter.

The Echinoderms illustrate the next general advance. These have radial symmetry, a well-developed coelom, an anus, tube feet for locomotion, and a spiny skeleton of calcareous plates, the modern forms being the starfish, brittle-star, sea-urchin, sea-cucumber, sea-lily, etc. Countless millenniums passed, through which some lower animals underwent modifications which finally gave us the segmented worms, the modern forms of which are the common earth-worm and leech, known as Annelida. These show a considerable degree of evolution in every part of their structure, the outstanding characteristics of which are bilateral symmetry, a digestive system very similar to that of higher animals, a complex circulatory system, "a more concentrated" nervous system, simple sense organs, and a highly developed reproductive system.

Again, adding sufficient time for evolution to take place, an eighth phylum becomes defined, the identify-

² *College Zoology*, by Robert W. Hegner, Ph. D., p. 176.

ing marks being a foot for locomotion, a shell, a mantle, gills, and a nervous system. The existing animals of this class, known as Phylum Mollusca, are the fresh-water mussel, snail, clam, and oyster. Leaping over another millennium of millenniums, more or less, we find quite an array of new and varied forms having the common characteristics of jointed feet and a covering of resistant substance which serves for protection and attachment of muscles. Details cannot be given of all the advances in complexity of structure illustrated by this large phylum, the Arthropoda. However, to name a few of its present representatives suggests developments as to organs of locomotion, sensation, reproduction, digestion, etc., that are marvelous indeed. How they have evolved, if such be their origin, constitute miracles hard to believe, and hence call for evidence of the most conclusive nature to prove the same. Note the crayfish with its complex system of appendages, and its unique compound eye; the centipedes and millipedes with all their legs; the honey bee with amazing adaptation for securing food and offering defense; and a million other species equally divergent and complex. All of these, evolutionists confidently affirm, have arisen through "continuous, progressive change, according to certain laws, and by means of resident forces."

It appears from this that in an investigation of the evidences of evolution, we must look for four great things: first of all, unquestionable cases of "continuous, progressive change;" second, the laws by which these changes are made; third, and of especial importance, the dynamic, the mechanism that can produce

these marvelous adaptations; and fourth, why there is a standstill in all of the present forms.

And still the millenniums roll by in which the "continuous, progressive change" is ever apparent. It manifests itself in a strikingly new way. Some arthropod gradually gave up his covering which served as the frame for his body and developed a new structure, the notochord. So pronounced was this evolution that in the modern time a phylum known as the Chordata is made to include this group. Among these, according to modern biologists, four or more sub-phyla have evolved, chief of which is the Vertebrata. The vertebrates have become differentiated into five main classes. The first of these is the fishes breathing by gills, being cold-blooded and often scaly. After the lapse of millions of years, evolutionists believe, some of these fish became accustomed to spending part of their life on the land, and thus developed lungs in the adult stage of their life. Those which have not advanced beyond this stage from that time to the present are now called Amphibians, which include frogs, toads, and salamanders. The Amphibians disclose other distinct developments such as a three-chambered heart, although their blood is cold, as among the animals lower in the scale. But some of the Amphibians were more ambitious than their fellows, or probably environmental conditions were the cause; at any rate, during the lapse of many thousands of years some of the Amphibians gave up breathing with gills entirely and developed lungs only. The members of this group which have not evolved further are the lizards, snakes, crocodiles, and turtles.

Evolutionists believe that as time went on some of these reptiles, for reasons not understood, began to live in the trees, and this arboreal life gradually caused a marked evolution of their structure. Their frequent going from limb to limb or from tree to ground somehow caused feathers to grow which would aid them in checking their landing. So, too, fore limbs became wings, just how it is not known, although this change is ardently held to by the adherents of the theory of development. Among these new creatures the blood was constantly warm and egg-laying was the rule. Those not evolving further are now called birds.

In process of time a new line of animals became defined. Although their origin is unknown, it is confidently affirmed that from some lower orders, probably the Amphibians, a group of animals evolved which developed and took care of their young in a new way. Instead of the egg being laid by the female, it was retained within the body of the mother until incubation was completed. Milk-secreting glands were evolved to nourish the young. No one knows by what processes these changes came about, but that they did come is firmly believed by evolutionists. This new group of animals is now known as mammals, among which are such animals as seals, whales, cats, dogs, horses, cattle, monkeys, apes, and man.

The passing of the ape-like animal to man was the last link of this agelong evolution. The ancestors of man, evolutionists believe, lived in the jungle, principally on the trees. With four limbs and a tail arboreal locomotion was a complete success. These animals enjoyed a social life comparable to the monkey life. For reasons not understood, a group of these

monkeys lost their tails. Some evolutionists hold that they had the habit of sitting on the limbs so much that the tail gradually wore off. Through millions of years these ape-like animals began to forsake the trees. Life on the ground presented new problems and the ingenuity of these animals was tested to the limit to preserve life. This necessitated banding together. The whole story is not known; however, to state the matter briefly, these ape-like animals became more intelligent, began to revere the trees, sun, moon, stars about them, and eventually became religious creatures. This religion developed through animism, fetishism, polytheism, and finally to monotheism. Socially, man developed from the clan to the tribe, and finally to the nation. And so the process continues. What the future millions of years will show is not known.

As depicted in the preceding paragraphs, evolutionary thought has assumed a wonderful intricacy. So far I have been aiming to set forth the meaning of the term "evolution" and explaining its external application in the realm of biological science. This family tree would indicate that man's nearest relatives are the apes, and the remotest the one-celled Protozoa.

Probably the question of greatest concern that enters one's mind is: "Is this story true? Has there been through the countless ages of the past such an evolution, continuous and progressive, according to certain laws and by resident forces?" An impartial investigation according to true scientific methods is certainly in order. As I stated earlier in this chapter, three inquiries need to be made on a strictly scientific basis: (1) Is there unquestionable evidence forthcom-

ing to prove that life is changing continuously and progressively? (2) What are the laws according to which these changes take place? (3) What are the resident forces that are producing such stupendous results? Certainly evolution ought to stand the severest scientific test that can be imposed upon it. These three questions shall determine to some extent my method. I am concerned with the evidences, the laws, the dynamic. In a discussion of these principles, a conscientious attempt is made to be true to the facts of science.

Chapter III

LIFE—WHENCE? WHITHER?

EVOLUTIONISTS MUST SUPPLY AT LEAST FOUR LINKS TO A CHAIN OF ARGUMENT

The origin of matter, of life, of species, of man—these four form links in a chain for each of which scientific proof is required before the theory of evolution can be recognized as a law. Man, we know; species, we know; life and matter we know; but when a theory is propounded which attempts to establish a genetic relationship among these, deriving man from animals, animals from a primordial cell, this spark of life from inanimate matter, and matter from an unknown, we perceive the necessity of a scientific proof of each link. If any of these links cannot be forged by incontrovertible facts, logic requires that the theory be transferred from the realm of science to that of philosophy and there be placed with other theories which have lived and died, but which have been preserved for students who may be entertained by curious speculations.

Let us now be concerned with the scientific explanation of the first two links, reserving the third and fourth for the succeeding chapter.

THE ORIGIN OF MATTER

When the origin of matter is sought, one is forced back to larger questions: What is the origin of the world and of the universe? Manifestly, it is impossible to give any scientific answer to these questions. One may speculate about the origin of the world, and even if a satisfactory answer could be given, the problem of matter still remains unsolved. Science is speechless on this question. But the logical faculties of one's mind demand that, if one is asked to believe in a law of change, a scientific answer must be given. This much is certain, either that matter is eternal or that it was created. The noted sociologist, the late Professor Lester Ward, hooted at the idea of the creation of something out of nothing; so it must be concluded that he accepted the only alternative that remains.

But the logical faculties of one's mind again intrudes with an interrogation: What is necessarily implied in the thought that matter is eternal? There can be but one answer. If matter is eternal, then MATTER IS GOD, and PANTHEISM FOLLOWS. One's whole being revolts from this conclusion, because the God of a personal being must necessarily be a person—nothing less. It is apparent that the discussion has drifted from science to philosophy, so it shall be reserved for a fuller treatment in its proper place. I wish, moreover, to repeat my contention: If one is asked to believe the theory of evolution with all its far-reaching implications, its proof must be scientific from beginning to end, and clearly the origin of matter constitutes one of the first links of the chain. The truth is, matter is finite as to time and space, and had its ultimate origin

in the creative fiat of an adequate cause. This much, at least, it is strictly scientific to affirm.

THE ORIGIN OF LIFE

Matter and its origin are but the beginning of the wonders of the world. Of still greater marvel is life and the manner of its beginning. There are physical and chemical laws that react on matter, but these do not explain life. Life has ever been an enigma. The animate and the inanimate present an inexplicable difference. The recognition of its complexity derived from the study of its manifestation in man is in no way lessened as one examines the microscopic amoeba. Thus Dr. E. B. Wilson puts it: "The study of the cell has seemed to widen rather than to narrow the enormous gap that separates even the lowest forms of life from the inorganic world."¹

At this point a very important problem comes up for the evolutionist to solve: How did the process of reproduction evolve? That primordial cell was so extremely simple, and yet it had to do at least two things: secure and assimilate food, and reproduce itself. It is the utmost folly to think that after many attempts this simple cell evolved a method of reproduction. The question, cold and unrelenting, remains: how came the first cell to reproduce itself? It must be considered at this juncture because it throws into clearer relief the real problem involved in the origin of life.

How, then, did life begin? Professor Ward, after stating how "planets are formed by the condensa-

¹ *The Cell in Development and Inheritance*, p. 434, quoted by J. D. Charles in *Fallacies of Evolution*, p. 15.

tion of nebulous matter," answers it thus: "There is everywhere a universal chemism, and different substances are constantly being formed through the contact and elective affinities of matter. Within a certain somewhat narrow range of temperature . . . this chemism may be supposed to pass into zoism during the process of cooling of a planet."² Although he immediately acknowledges that this is mere speculation, the tone of his work from beginning to end shows his confidence in the idea that in some way, without the intrusion of an external power, life was the "synthetic creation of chemism."³ It is well nigh amazing that scientists can even think of holding such a view in the light of what that first cell must have been and the fact that the spontaneous generation theory received its deathblow a half a century ago at the close of a century or more of conflict on the subject. The numberless experiments have proved the truth of the biogenetic law stated first by Harvey, *omne vivum ex vivo*, all life is from life.

And why is it that scientists of the present day, (I am not aware of a single evolutionistic writer who does not believe in what is identical with spontaneous generation.) keep their minds open to its possibility, even probability, in the light of all the evidence which is absolutely opposed to it? Is it not because the origin of life by natural laws is a necessary link in the evolutionist's argument? Huxley recognized this more than fifty years ago, when he wrote: "If the hypothesis of evolution is true, living matter must have arisen from

² *Pure Sociology*, pp. 115 ff.

³ *Ibid.*, p. 119.

not-living matter; for by the hypothesis the condition of the globe was at one time such that living matter could not have existed in it, life being entirely incompatible with the gaseous state.”⁴

As long as biologists reject the clear statements of the Divine record which affirms that life originated by special creation, there is absolutely no alternative to spontaneous generation unless life came from some other planet, or is eternal. To accept the former simply pushes the question back to the origin of life on other planets, the biogenetic law being as true in the remotest ages of the past as to-day, and on other planets as on this. To accept the latter puts one into the same difficulties as to affirm that matter is eternal. Being face to face with the alternative of spontaneous generation or special creation, the former being admitted as unproved and the latter cast aside as “a pure humbug,” and recognizing the bearing of the whole matter on the evolution theory, one perceives that evolutionary science has again left the category of facts and has crossed over to speculative philosophy. It means that the second link of the chain of proof for evolution is speculation, not science. A chain of proof in science to be conclusive can have no links in the realm of speculative philosophy. In a later chapter it shall accordingly be dealt with and disposed of as a philosophical view.

It is important to understand the weight of this conclusion. From the standpoint of the true scientific method, it is folly to fly in the face of facts and not

⁴ Art. *Biology*, Ency. Brit., 9th ed. (1876), p. 689, quoted by Joseph Cook, *Biology*, p. 19.

be injured by their assault. It is argued that evolution is strictly a scientific law based upon facts. Accordingly, one is not allowed to deny it solely on philosophical or theological grounds. It is agreed that in so far as evolution is based on facts, the opposition must be of the same kind. For this reason, on the basis of facts, or rather their absence, if evolution demands that life had its origin according to "resident forces" of matter, and such origin can not be proved, having all experimentation decidedly against it, is it not SCIENTIFIC to affirm that in this crucial question the theory of evolution is decidedly unscientific and that the entire foundation of the theory has been thus very seriously imperilled?

Of course, it may be argued that other evidence for evolution is overwhelming, that even if the origin of life has no scientific basis, the general theory is still true. But if so, why did Huxley make such a fatal admission? Certainly, on this point there has been no advance in scientific knowledge since he wrote his article for the *Britannica* fifty-six years ago. If one's mind is open to scientific truth, it seems that some such conclusion as the following ought to be arrived at: Since evolution is recognized as continuous, progressive change, according to certain laws, by resident forces in which "change after change goes on from the nebular chaos toward universal cosmos, from cosmos to bios (life), and from bios to logos,"⁵ and since the changes from nebular chaos toward universal cosmos (i. e., the origin of matter), and from cosmos to bios by resident forces, are purely hypothetical, the whole

⁵ Ward, *op. cit.*, p. 93.

theory of evolution itself becomes hypothetical. It is honorable to abandon a theory when facts are plainly against it.

So much for the "Whence?" of life. My next question is the "Whither?" of life. It is immediately noted that this brings us to the pivotal question of evolutionary science: Are life forms essentially stable or is "descent with modification" the rule? According to the guiding definition of evolution, life is continuous, progressive change. It is argued that, due to our limitations in time, it is impossible for one to view species as ever undergoing modification. It is held that the notion "species" is entirely a fiction of the mind. If we could look at life throughout geologic time we would perceive this truth. The argument is supposedly based on the facts of science. To the so-called facts, the evidences, the proof of "descent with modification," attention will be directed in the following chapter.

Chapter IV

THE ALLEGED EVIDENCES EXAMINED

THE ORIGIN OF SPECIES

In the previous chapter an examination was made of the scientific basis of the first two links of the chain of argument necessary to prove evolution as a law. We found that the questions of the origin of matter and the origin of life, so far as science is concerned, remain unsolved. In the chapter on "The Philosophy of Evolution" I shall treat these two topics. I come now to the third link, the origin of species. It has to do with the "continuous, progressive change" part of the definition of evolution, especially as it concerns existing life. Putting the chapter heading in question form, it is: Is the origin of the diverse forms of plants and animals to be explained by descent with modification? The method of answering this question will be to examine the evidences set forth by evolutionists purporting to prove that this is the law of descent.

THE NATURE AND VALUE OF EVIDENCE

The theory of evolution, if true, carries with it far-reaching consequences. For this reason the character of the evidence needs to be examined with painstaking scrutiny. According to legal procedure, evidence relates only to facts. Inferences and presumptions do not constitute evidence and must be used with

exceeding care. He who alleges a fact must prove it. A careful distinction must be made between evidence that is direct, such as "the statement of a person who saw, or otherwise observed with the senses, the fact in question," and indirect evidence, that is, "evidence of facts from which the fact in question may be inferred". Hearsay and opinion are excluded as not having evidential value. As the evidences are presented one by one, these principles of evidence must be continually kept in mind.

CLASSIFICATION OF THE ALLEGED EVIDENCES OF EVOLUTION

There are ten lines of evidence upon which scientists from Darwin's day to this have relied to establish the theory of evolution. Several of these overlap to some degree, but for purposes of discussion they may be distinguished as follows:

1. The gradation of organisms
2. The general similarities of structure
3. Embryology
4. Rudimentary organs
5. Physiology and Blood Tests
6. Geographical distribution
7. Adaptation of organisms
8. Changes under domestication
9. Observed facts of mutation
10. Geological succession of organisms¹

¹ These ten "evidences" adapted from Galloway, *Text Book of Zoology*; Parker and Haswell, *Text-book of Zoology*; Woodruff, *Foundations of Biology*; Castle, *Genetics and Eugenics*; and Lull, *Organic Evolution*.

I. The Gradation of Organisms

It will be recalled that in Chapter II, I illustrated the idea of evolution by showing how the commonly used systems of classification of plants and animals may be represented by a genealogical tree. On the possibility of such a classification, an argument for evolution is based. Castle, quoting the summary of Huxley as modified by Locke, states it thus: "Both in the animal and vegetable kingdoms we may trace, in spite of certain gaps, a long series of gradations in complexity of structure, so that between the simplest and the most complicated of living things a great number of intermediate stages are to be found."

On the surface it may appear that this evidence points to one of two things: Creation, according to a plan, or evolution. A closer study shows that it must be interpreted as supporting the former view rather than the latter. If the complex forms have descended from the simple ones, we would expect that *all* of the simpler forms would likewise have evolved and that the simpler forms would be found only in the earliest ages of geologic history. It is strange, indeed, that the Protozoa should have remained stable throughout millions of years, while those that have evolved have progressed from the amoeba to man. Certainly this evidence does not point to variation as being the general rule of life because it is the exceedingly small group which in each stage made the upward leap, while all the rest remained stable from that time to this. Moreover, when certain of the Protozoa developed into the sponge stage, it was only a few that made the change, while all the rest have remained stable to this

day. Again, only a few of the sponges developed into the coelenterate stage, while all the rest remained stable to this day. And so on until man is reached. How can descent with modification be the rule, if the Protozoa, and after them in the process of development the sponges, coelenterates, flat worms, round worms, and so forth have all remained unchanged to the present? If this evidence teaches anything, it teaches the doctrine of the stability of life forms.

In the second place, this alleged evidence stands in opposition to the important biological principle that life depends on life. In his work, "Fallacies of Evolution", the late Professor Charles, says: "The Theory of Evolution . . . denies that life depends on life. In other words, it assumes that life in its lower forms could subsist without the higher forms Plants grow from the ground. Animals feeding on plants form food for other animals, and the so-called lower forms of life, especially unicellular organisms, have a definite relationship in the sustenance of life with both the animal and vegetable kingdoms." He gives an extended quotation from Shultz, part of which is as follows: "The so-called 'low' and the so-called 'high' forms of life are interdependent; they necessitate and presuppose one another. Without the higher forms of life no lower forms are possible, and without the lower forms there can be no higher forms."

This fact proves that the evidence presented by the gradation of organisms *can not* be interpreted as proving descent with modification, because the "low" forms could not have existed without the "high" forms.

In the third place, this argument ignores the vital problems connected with the classification of plants

and animals. It will be recalled that mention was made of those invertebrate groups of "uncertain position", such as the Nemertinea, Rotifera, Bryozoa, etc. Determining their position in the classification is mere guesswork. If evolution has taken place the position of these ought to be determinable. Again, the Arthropoda as a class differ essentially from the Vertebrata, which are supposed to have evolved from it. Evolution cannot account for those fundamental changes in structure that took place somewhere between a simple arthropod and its vertebrate descendant. Note the following: the notochord or vertebral column, the dorsal position of the nervous system as related to the digestive tract, the ventral position of the heart, etc.

Even more pronounced is this difficulty in the Plant Kingdom. Professor Price quotes J. P. Lotsy, the Holland botanist as saying, "Phylogeny, *i. e.*, reconstruction of what has happened in the past, is no science, but a product of fantastic speculations."² This statement from one who spent a considerable part of his life in efforts to trace the phylogeny of the vegetable kingdom is of utmost significance. The same truth has been lately expressed by other noted botanists. Thus A. G. Tansley, (quoting again from Price) "did not hesitate to say that he regarded recent developments in botany among the plants 'literally a hopeless quest, the genealogical tree an illusory vision.' "

² Art, *Modern Botany and the Theory of Organic Evolution*, in *The Princeton Theological Review*, Jan. 1925, p. 53.

“Prof. A. C. Seward, of Cambridge University, informs us that ‘the present tendency is to discard the old-fashioned genealogical tree with its wonderful diversity of branches,’ as being in any respects a true method of representing the course of evolution. Because, as he goes on to say, ‘a student who takes on an impartial retrospect soon discovers that the fossil record raises more problems than it solves.’ ”

Dr. D. H. Scott says, “Like Dr. Lotsy, I have become skeptical of late as to most phylogenetic reconstructions” (quoted from Price).

Prof. A. C. Seward, of Cambridge University, says (quotations from Price): “It may be that we shall never piece together the links in the chain of life, not because the missing parts elude our search, but because the unfolding of terrestrial life in all its phases cannot be compared to a single chain. Continuity in some degree there must have been, but it is conceivable that plant-life viewed as a whole may best be represented by separate and independent lines of evolution, or disconnected chains which were never united, each being initiated by some revolution in the organic world.” “Disconnected chains which were never united”! Is not this dangerously near affirming the necessity of a “special” Creation? The problem of the origin of the seed bearing plants is a most cogent example of “disconnected chains which were never united.”

In the fourth place the existence of these very problems connected with the classification of plants and animals constitutes the foundation of a new departure in evolutionary thought. It is to be noted that the direct cause of this new trend is found in the obvious

fallacy of claiming a relationship between all plants and animals and consequently of grading them according to their relationship in a genealogical tree. "Orthodox" evolutionists seeing the revolutionary import of this departure are attacking it very severely.

This new view of evolution, expounded by Austin H. Clark of the United States National Museum in *The New Evolution—Zoogenesis*, rejects entirely the genealogical tree upon which all forms of life are supposed to have developed, and thinks of "a whole forest of evolutionary trees" instead. On account of its revolutionary implications I shall quote at some length from pages 209-215 of this work and then point out the significance of this state of affairs in the camp of the evolutionists as it concerns our study.

Zoogenesis, according to Dr. Clark, includes three factors: evolution, mutations, and eogenesis. Explaining eogenesis he says, "The seemingly simultaneous appearance of all the phyla or major groups of animals simply means that life at its very first beginnings developed at once and simultaneously from the primitive single cell in every possible direction, giving rise to some original form or forms in every phylum."

He gives the relation of eogenesis and evolution as follows: "Through eogenesis the ground is prepared for the growth of the evolutionary trees. Therefore the picture that we get shows a whole forest of evolutionary trees of widely different sizes each of which arose from a seed formed and planted by the process of eogenesis."

The reasons for believing in "a whole forest of evolutionary trees" comes out in the following: "As the starting point for our search for order in the living

world we have *first* the unbroken continuity of life from the very earliest times until the present day, and *second* the necessity of interpreting or explaining the origin of all forms of life in terms of the single cell.

"These two important facts . . . must be considered in relation to the further obvious fact that all living things must eat. The single cell in order to grow and to develop and to produce other cells must be supplied with food, and the continuity of life from one generation to the next indefinitely is dependent on a similarly unbroken continuity in the supply of the necessary food materials.

"Since the conditions on the earth in so far as they affect the basic food requirements of plants and animals, to the best of our knowledge and belief have remained unchanged from the very earliest times at which we may assume that plants and animals existed, is it not reasonable to suppose that in its broader features the world of animals and plants has from the very first been essentially the same? The probabilities are in favor—overwhelmingly in favor—of the simultaneous development of some of the representative or representatives of all, or practically all, of the phyla or major groups of animals at the time of the very first appearance of life.

"The only acceptable hypothesis is that in its broader features the development of animal forms took place by *concurrent evolution*.

"All of the actual evidence we have supports this supposition. This evidence comes from the fossils that we find in the very earliest rocks wherein fossils are satisfactorily preserved. Practically all these fossils are more or less widely different from the correspond-

ing animals we know to-day. But we recognize them for what they are because they fall within the definitions of their respective groups, and these definitions are drawn up from a study of their living representatives alone.

“. . . There is no evidence of any kind which would lead us to suppose that any one of the major groups was derived through any of the others.

“On the contrary there is strong circumstantial evidence which indicates that none of the major groups could have been derived through any of the others.”

What is the significance of this new departure in evolutionary thought and its bearing on the alleged evidence based on the gradation of organisms? First, in its rejection of the genealogical tree and the putting in its place “a whole forest of evolutionary trees” it recognizes the impossibility of grading organisms, and this is to say that no genetic relationship exists between the multitudinous forms of plants and animals. Second, acknowledgment is herein given to the fixity of animal and plant forms from the most ancient times. This, as will be seen in section nine of this chapter, becomes quite the crux of the whole problem of evolution. If variation did not take place since the very earliest times, how can we affirm that it ever took place. Why not grant a Creator who brought all forms into existence at the beginning of the world and be done with the problem? Third, so near does Dr. Clark’s language come to a statement of special creation that he makes haste to forestall any such conclusion. A person must wonder why scientists are so afraid of believing in a God who has power to create a world of animals and plants as they are found to-day.

II. General Similarities of Structure

Statement of alleged evidence: "On comparing together the different members of one of the great groups or classes of animals or plants, we find the same fundamental plan of organization running through all of them. Series of corresponding organs are often to be made out which are built upon the same general scheme, although their functions may be quite dissimilar; so that, for instance, in the hand of a man, the paw of a dog, the wing of a bat, and the paddle of a whale, almost identically the same series of bones can be traced."³

A superficial examination of this evidence may lead one to conclude one of two things: Creation according to a general plan; or, as Castle quotes: "An obvious explanation is to be found in the supposition that these parts have arisen by the diverged modification of parts which were originally identical." But a pertinent question must be asked at this point: If evolution has taken place, why have there not been at least two genealogical trees of animals instead of one? Surely if *all* descent is characterized by modification of the offspring, there would have been a line of development in some other direction than that shown in existing animal life. It seems there should have been a development in some direction which would not be characterized by such typical similarities as nervous system, sexual method of reproduction, systems of locomotion, digestion, etc. A group of animals ought to have originated which would be sensitive to the out-

³ Castle, *Genetics and Eugenics*, 3rd ed., p. 47, quoting from Huxley's summary as modified by Lock.

side world and itself according to an entirely different mode than that shown in the nervous system of animals. At least one group of animals should have developed with a fundamentally different mode of reproduction. The same is true of locomotion, of digestion, and in fact of every life function. Instead there is only one mode of animal existence characterized by a fundamental similarity of structure from the amoeba to man. In its larger aspects the reproduction, digestion, sensation, etc., of the amoeba are the same as in man. In the light of these considerations a deeper view of these general similarities of structure is shown by positing a Creator who formed animal life from the simple to complex with a profound similarity of structure. Evolution leads to endless diversity of structure but creation alone accounts for fundamental unity.

The real weakness of this evidence is seen when one attempts to work out in detail these similarities and to determine the principle by which plants and animals are to be classified. The crucial question is: what are similar structures? In his recent work, *The Basis Of Evolutionary Faith*, pp. 135 ff., Professor Floyd E. Hamilton presents an array of evidence which shows the real problem of classification based on similarities of structure. The substance of his argument is as follows.

No two systems of classification are alike in all details, the differences arising as one scientist regards certain similarities between species as the essential marks which prove genetic relationship, while another scientist regards other organs which are similar to those of a different set of animals or plants, as the

features by which relationship is to be traced. One animal may be similar to another animal as to one set of organs, and if that set of organs were regarded as the norm of evolution, it could be classified accordingly, while it may be similar to another animal in regard to a different set of organs, and so classified in an entirely different group of animals if the second set of organs is regarded as the norm by which evolutionary relationship is to be traced.

Paradoxical as it may seem, there are innumerable instances in nature where animals are said to be unrelated genetically, though they possess similar structures which are used for similar purposes. This is called convergence. A splendid example of it is found in the electric organs of fishes and eels, some of these various species having the electric organ on the head and others having it on the tail. This fact precludes a common origin because it is manifestly improbable that the one kind could have inherited the electric organ from the other which has it in a different location on the body. The electric eel of South America, the ray or skate of the genus *Torpedo*, and the electric catfish of the rivers of Africa, each has an electric organ. Are these animals to be placed together as near relatives because of their similarity in respect to the electric organ? The absurdity of this conclusion is very obvious in view of the other details of structure of these animals.

Professor Hamilton adduces another example of convergence: the eyes of higher animals, of cuttle-fishes, and of the pecten, a bivalve mollusc. The eye of the cuttle-fish has a true retina, a sclerotic, a choroïd, a vitreous humour, an aqueous humour, and a

crystalline lens. Is this invertebrate related to the higher vertebrates in view of the similarity of eye structure? As for the pecten, it has a whole row of large eyes along the two edges of the mantle. Each of these eyes has an optic nerve, a cornea, a choroid, and a crystalline lens. Did the eyes of the pecten and the cuttle-fish, or the higher vertebrates evolve one from the other, or from a similar source, or did they evolve independently? The law of chance rules the last alternative out of court. The first two lead to absurd conclusions.

To what conclusion do all these facts point? First of all it seems very evident that similarities of structure do not prove genetic relationship. And second, in view of the fact that a consistent classification cannot be made on the basis of similarities of structure, we must look to another source for the origin of these similarities. The only adequate explanation of all the facts is the positing of a God who created the multitudinous forms of life, making similarities of structure at His will.

III. Embryology

Statement of alleged evidence: "All the members of a particular group of animals or plants, as a rule, resemble one another more closely in the earlier stages of their individual development than they do in the adult condition, and in the earliest stages of all they are often indistinguishable."⁴ Woodruff illustrates this point thus: "Lower Vertebrates, such as the Fishes, have a heart composed of two chief chambers:

⁴ *Ibid.*, p. 46.

an auricle which receives blood from the body as a whole and a ventricle which pumps it to the gills on its way to supply all parts of the body. Among the members of the next higher group, the Amphibia (Frogs, Toads, etc.), the auricle is divided into two parts, while the ventricle remains as before. Thus these forms have a three-chambered heart. Passing to the Reptiles, we find that most of the Lizards, Snakes, and Turtles have the ventricle partially divided into two chambers, while the more specialized Crocodiles and Alligators have a complete partition and therefore a four-chambered heart. This is the condition in all adult Birds and Mammals, but the significant fact is that, in the development of the heart of the individual Bird and Mammal, embryonic stages succeed each other which parallel in a general though remarkable way this sequence from a two-chambered to a four-chambered condition as exhibited in the adults of the lower Vertebrates.”⁵

The evidence from embryology is considered by evolutionists to be especially strong and convincing. Yet one must say, as can be said also in the cases of the gradation of organisms and the general similarities of structure, that this leads to nothing more than a presumption in favor of evolution. There is nothing at all in this evidence to exclude creation as an explanation of the phenomena revealed by embryonic development. Furthermore, what else could we expect but that the complex animals should traverse in a general way the same ground as do the simpler forms in embryonic development, in view of the general similarity

⁵ *Foundations of Biology*, p. 364 ff.

of structure in the adult state? However, a close study of embryology reveals a truth that, despite the general similarities of embryonic development, every animal has distinct peculiarities, and, as Dr. E. B. Wilson puts the matter, "it almost seems as if every egg was a law unto itself,"⁶ so that as we pass from the embryonic stage of animal to animal, these larger similarities of development lose their significance because of the unique history of each animal.

The fact that, in the case of the more complex animals, organs appear and later disappear in the process of embryonic development does not mean that they appeared simply because these organs were present in a very ancient ancestor and have since been lost. The organs evidently appear in that stage of development because *there is a distinct function to be performed at just that stage that requires just such an organ to carry on the same*. In the study of embryonic development, as well as of "rudimentary" organs, one needs to be exceedingly careful not to misjudge the function of a given part or to declare the same to be functionless. It is reasonable to believe that every structure in the body of a given organism in any stage of development from the egg to the adult has a distinct function to perform. Further scientific investigation is certain to reveal many things along this line.

What about the gill-slits possessed by the embryos of the complex animals above the Fishes? One must admit the similarity of structure between the two; but with all reason should it not be maintained that, since in the case of the one these slits develop into entirely

⁶ *The Cell in Its Development and Inheritance.*

different organs from what results in the other, the similarity is only in appearance, while in reality they are entirely different structures, possessing different functions? O'Toole, in his discussion of this question, says: "It is, therefore, ridiculous for evolutionists to speak of *branchial* (gill) arches and clefts in man. The visceral or pharyngeal arches and grooves appearing in the human embryo are unquestionably homologous with the genuine branchial arches and clefts in a fish embryo. In the latter, however, the grooves become real clefts through perforation, while the arches become the lamellae of the permanent gills, thus adapting the animal to aquatic respiration. It is, accordingly, perfectly legitimate to refer to these embryonic structures in the young fish as gill arches and gill clefts. In man, however, the corresponding embryonic structures develop into the oral cavity, auditory meatus, ossicles of the ear, the mandible, the lower lip, the tongue, the cheek, the hyoid bone, the styloid process, the thymus, the thyroid and tracheal cartilages, etc. There is no perforation of the grooves, and the arches develop into something quite different than branchial lamellae. Hence the correct name for these structures in the human embryo is *pharyngeal* (visceral) arches and grooves, their superficial resemblance to the embryonic structures in the fish embryo being no justification for calling them branchial."⁷

IV. Rudimentary Organs

Statement of alleged evidence: "In man there are nearly a hundred structures which at best are useless

⁷ *The Case Against Evolution*, p. 278, 279.

and sometimes are harmful. One thinks at once of the vermiform appendix of the large intestine, a remnant of an organ which serves a useful purpose in the vegetable-feeding (herbivorous) Mammals. But equally suggestive are the muscles of the ear . . . the so-called third eyelid at the inner angle of the eye . . . or the terminal vertebrae (coccyx) of the human spinal column, which are remnants of the tail of lower Vertebrates. Other animals are likewise replete with such structures. Porpoises possess vestiges of hind limbs enclosed within the body, and certain species of Snakes have tiny useless hind-legs. The 'splint bones' of the horse are remnants of lost toes. Among plants, it will suffice to mention the functionless remnant of the pistil which sometimes is present in 'male' (staminate) flowers."⁸

In the first place, to call a structure useless and functionless is a presumption on the part of those who use the adjectives. Has science made so much progress that it is qualified to pass judgment upon the function of every structure found in such a complex organism as the human body? "The thyroid gland," says Professor Charles, "is a rudimentary organ. 'Cut it out' and out it comes. But many of the victims died from the effects of the operation; all the others developed myxedema, a form of cretinism. It was rudimentary, was it?"⁹

In addition to the thyroid gland, the thymus and pineal glands used to be classified as rudimentary organs. To-day these organs are seen to have a signifi-

⁸ Woodruff, *op. cit.*, p. 355.

⁹ *Fallacies of Evolution*, p. 35.

cance in metabolism and the maintenance of physiological equilibrium. Are we so certain that the vermiform appendix and the terminal vertebrae are functionless? No less an authority than Dr. John H. Kellogg holds that "the coccyx is a very useful part of the anatomy. It affords a support for certain very useful muscles, which are employed in the control of the use of the bowels. The appendix is also a useful organ. It secretes a mucus which lubricates the intestines."¹⁰

Speaking of Darwin's error in confounding *apparent* with real inutility of organs, O'Toole adds: "Darwin and his followers frequently argued out of their ignorance, and falsely concluded that an organ was destitute of a function, merely because *they* had failed to discover its utility. Large numbers, accordingly, of highly serviceable organs were catalogued as vestigial or rudimentary, simply because nineteenth century science did not comprehend their indubitable utility. With the advance of present-day physiology, this list of 'useless organs' is being rapidly depleted, so that the scientific days of the rudimentary organ appear to be numbered."¹¹

If, in the progress of scientific research, one by one these rudimentary organs are found to have a function, is it proper to call them rudimentary? Their structure and size conform to their function.

In the second place, to call a structure vestigial, rudimentary or remnantal is to beg the question. If evolution really took place, and if these organs had at one time a function similar to that of other animals,

¹⁰ Quoted in editorial of *The Bible Companion*, Nov. 1924, p. 559.

¹¹ *The Case Against Evolution*, p. 291.

they might be described by these adjectives. But these conditions are the very points in dispute. The evidence has only inferential value, not direct.

Against the possibility of an organ becoming rudimentary Professor Woodruff of Yale, says: "The general consensus of opinion of biologists is certainly to the effect that modifications, or changes in the individual body due to nurture, use and disuse are not transmitted as such. This conclusion is held chiefly because there is no positive and much negative evidence forthcoming, and also because there is no known mechanism by which a specific modification of the soma can so influence the germ complex that this modification will be reproduced as such or in any representative degree."¹²

When I come to discuss the factors of evolution, I shall have occasion to treat this matter more fully. It is sufficient to say here that this great principle formulated by Weismann, showing the independence of soma and germs simply proves from the angle of heredity that species are not variable beyond the limits of the possibilities of the germ complex.

Finally, within the knowledge of men, not a single case of an organ becoming rudimentary has been observed.

V. Physiology and Blood Tests

This is the most recent so-called "evidence" presented by evolutionists, and is held by many to be the most conclusive in support of evolution. Thus Professor W. B. Scott says: "The blood tests have brought

¹² *Foundations of Biology*, p. 266.

very strong confirmation to the theory of evolution and from an entirely unexpected quarter; they come as near to giving a definite demonstration of the theory as we are likely to find.”¹³ Professor H. H. Newman, of the University of Chicago, says: “The results (of blood tests) so far attained, however, are so definite and clean-cut that there is every reason to expect a great future for this type of evolutionary evidence.”¹⁴ Professor Charles Hill-Tout, the well-known anthropologist of Vancouver, B. C., in his book, “Man and His Ancestors”, “devotes one entire chapter to this blood-argument, which he considers one of the strongest and most convincing for his theory.”¹⁵

Since evolutionists claim that blood presents such direct evidence for relationship among animals, a close examination of this alleged evidence needs to be made. As this is a highly technical subject, special pains will be taken to simplify the explanation. In this discussion I am greatly indebted to Dr. Arthur I. Brown’s article, already quoted; also to Rev. H. C. Morton’s *The Bankruptcy of Evolution*, and Dr. Scott’s chapter, *Evidence from Blood Tests*, in Newman’s *Evolution, Genetics and Eugenics*.

“As every one knows”, says Dr. Brown, “blood is the life-fluid which flows swiftly and ceaselessly through the marvellous system of tiny tubes in our bodies, made up of arteries, veins and capillaries. The arteries are the vessels which carry the red, oxygenated blood from

¹³ From Chapter IX, *Evidences From Blood Tests*, written by Scott, in Newman’s *Evolution, Genetics and Eugenics*, p. 134.

¹⁴ Quoted by Dr. Arthur I. Brown in *The Bible Champion*, Nov. 1925, p. 537.

¹⁵ Dr. Arthur I. Brown, *ibid*.

the heart to all parts of the body. They gradually diminish in size as they branch in a wide network, at last becoming so small that they accommodate but one microscopic cell in the minute channels known as the capillaries, which connect the arteries with the veins. The capillaries are spread out all through the tissues and organs and gather up the flow to discharge into the veins, whose function it is to carry the blue blood . . . back to the lungs

“Blood contains two definite and distinct parts, one solid, the other liquid. The solid portion is called cells, red and white.” The red cells are far more numerous than the white cells, but the latter are larger, and can change their shape and act more independently. “They have a different and distinct function in devouring invading germs, and perhaps assist in manufacturing substances to antagonize the poisons of disease-producing bacteria. In common with the red cells, they are composed largely of protoplasm and a group of chemicals.”¹⁶

Whenever blood escapes from its natural habitat, the blood vessels, a complex and little understood process called clotting or coagulation takes place. The liquid part of the blood is broken up into serum and a substance called fibrin. This fibrin enmeshes the blood cells, and the mass thus formed separates from the serum. This entire process demonstrates the highly intricate composition of this life-fluid.

There are several methods of making blood tests, two of which will be noted: (1) the transfusion of blood, and (2) the precipitation method.

¹⁶ *Ibid.*

In the former, blood is transfused between man and man, between man and animals, and between various animals. Numerous experiments of transfusion of blood between human beings reveal four types of individuals, grouped according to the compatibility of their blood;—i. e., if proper types are mixed, no serious effects are noted, while in the mixing of wrong types very serious and even fatal reactions may follow. In the case of the latter one does not conclude that one or the other is not a human being. Again, “the serum of the horse can be used with perfect safety on a human being. This does not prove a genetic relationship between man and the horse, nor, on the other hand, would incompatibility disprove it.”

Professor Brown refers to three more closely related experiments. He says: “Professor Brumpt found that animals inoculated with the blood of men suffering from sleeping sickness contracted the disease. The only exceptions were a few apes and pigs. Does this prove a close relationship between these two classes of animals—apes and pigs—and a separation from other animals and men? No such conclusions can be drawn.”

“Metchikoff and other experimenters have tried to develop syphilis in chimpanzees, apes, and monkeys by inoculating them with a very virulent form of the disease, but obtained only very feeble reactions. Does this prove the opposite to the preceding experiment?”

“Again, compare ass’s milk and human milk. By adopting the evolutionary logic, we should come to some ridiculous conclusions. The quantitative chemical analysis reveals the fact that, of all mammals, the ass is the closest to man in this respect—the similarity

of their milk. We would hardly dare to assert that man must class himself with this long-eared fraternity, nor that, because horse's milk is nearest in composition to that of the ass, we should arrange them in this genetic order from above downwards; viz., man, ass, horse, cow."

Another phase of the transfusion of blood is discussed by an English writer: "Among all races of mankind this can be done, though not without some danger incidental to the experiment. But it is absolutely fatal when the blood of a human being is transfused into an animal, or when that of an animal is transfused into a bird. Their flesh is different, and the blood corpuscles of one 'kind' do not fit the capillary blood vessels of another 'kind'. The injections of the *circular* blood corpuscles of the animal into the *elliptical* blood vessels of the bird *produces instantaneous death!* The blood is the life, and the life cannot be conveyed in vessels of a disproportionate size.

"In each 'kind', species that are closely allied are not so suddenly affected; but the blood of one 'kind' (or genus) cannot be transfused into that of another without fatal effect.

"These phenomena are constant in the different 'kinds of flesh', and show, therefore, that there cannot be an evolution of one kind into the other."

The strategic point to be observed here is not so much the degree of difference between the blood of man as compared with that of animals, but that there is a difference, and that for every kind of animal, including man, this phenomenon remains constant. A parallel case is to be found in the nature of the protoplasm making up the cells of different animals. Each

animal has a distinctive kind of protoplasm, and the protoplasm, as far as science knows, is stable, never varies, and reproduces its kind. So it is with the blood corpuscles; they are known by their size, shape, and chemical composition, which do not vary.

Seeing that by the transfusion of blood and kindred experiments nothing is proved, let us examine the blood tests (precipitation method) concerning which so much has recently been claimed. Extensive investigations have been carried on by Friedenthal, Uhlenhuth, Wassermann, Schutze, and Nuttall, fully 16,000 tests being made by the last. The method of the tests was as follows: Freshly drawn blood from man or an animal is allowed to clot or coagulate. The serum, which remains after the coagulation, is injected into the veins of another animal and causes the formation in its blood of an "anti-body," "precipitin," or "anti-serum," analogous to the anti-toxin which is produced in the blood of the horse by the injection of diphtheria virus. When this anti-serum is mixed with serum taken from the blood of the first animal, a precipitate is formed. The nature and amount of this precipitate compared with that formed by the injections of the same anti-serum in a third animal constitute the basis for comparative study. Similarity as to nature and equality as to the amount of two precipitates are held to be proofs of similarity of blood between the first and third animals, and similarity of blood is held to indicate kinship. Of all systems in an organism, the blood is considered by evolutionists to have been the most conservative. On this account so much weight is given to this evidence.

As described above, one may prepare an anti-

serum between any two animals. Thus by injecting human blood into a rabbit, pig, horse, fowl, etc., an anti-human serum is formed with each of these respectively.

If any of these anti-human sera be mixed with human blood and an ape's respectively, the two precipitants formed, afford a basis for comparison. Of this nature were the 16,000 experiments of Dr. Nuttall.

It is strange, indeed, that totally diverse interpretations can be made of such extensive experimentation. On the one hand, Professor Scott's general conclusion with respect to Dr. Nuttall's work has already been given. Concerning the same experiments Professor Woodruff says: "Thus, as one would expect, human blood shows closer chemical relationships with the blood of Man-like Apes than it does with that of the Old World Monkeys; closer relationships with the blood of the latter than it does with that of the lemurs; and so on." On the other hand, Dr. A. I. Brown, Erich Wasmann, Rev. H. C. Morton, and others point out the necessity for adopting an opposite conclusion. Even Dr. Nuttall himself, though an evolutionist, takes quite a modest attitude toward the results achieved. Morton writes that Nuttall devotes a long section to "Sources of Error in Precipitin Tests." Nuttall's own summary of his position is as follows: "In view of the crudity of our methods, it is not surprising if certain discrepancies may be encountered in the course of investigation conducted by biological methods; the body of evidence is, however, perfectly conclusive."¹⁷

¹⁷ Quoted by Morton, *The Bankruptcy of Evolution*, p. 186.

In the author's mind the evidence presented in these extensive experiments reveals three serious fallacies. In the first place, as Dr. Brown shows conclusively, these tests do not constitute true blood tests. Inasmuch as "all the cells with their protoplasm and chemicals are removed; also the plasma is changed by the formation of fibrin, the extraction of which leaves us only a liquid known as serum—a remarkable fluid, but vastly different from original living blood, or even plasma," one must conclude that "the shattering of this combination changes the whole nature of the fluid, and thus invalidates the test." In other words, none of these experimenters used blood in their tests. Dr. Brown says: "It was simply the chemically changed liquid residue left after the process of clotting had been completed." He adds: "Not even were they working with normal bloody 'plasma', since from this many valuable constituents had been extracted, and other new substances added by the formation of the 'platelets'. And of course all blood cells, with their amazingly complex protoplasm and the mysterious and unknown life-principle, had been completely eliminated."

In the second place, the nature of the experiments is so exceedingly delicate and the possibility of error so great that no conclusive results can be rightfully claimed. Says Dr. Brown: "Even with the most meticulous care as to technique, the experimenters are unable to prevent variations and mistakes. Blood is so exceedingly sensitive and so instantaneously responsive to the slightest change in environment, leading to cooling or foreign contact, and so subject to constant alteration from the countless complex food-products which are being introduced into it, that no two speci-

mens, even in the same individual, are ever identical." Nuttall, himself, as quoted above, considers his methods crude and the results liable to discrepancies.

In the third place, the hopelessly conflicting results completely invalidate the entire evidence. Concerning the numerous qualitative tests that Nuttall made, Morton concludes: "*If similarity of blood proves relationship*, we must believe that, while Man and the anthropoid are closely akin, Carnivores, Rodents, Hoofed Mammals, and the Whale tribe are all in a measure related to one another, and are all more akin to Man than that cousin of the Apes, the lemur."

"But Nuttall also gives the results of *Quantitative Tests* in which he measured the amount of precipitum or deposit produced by the various bloods tested. The results are *exceedingly* peculiar." Several tests are recorded: three with "Antiprimate Sera" and two with "Anti-pig Serum." Concerning the first test Morton says: "If these tests show *real* results, then otter, jackal, sheep, ox, etc., bear some relationship to man!" In two other tests "one species of baboon is *as* closely related, and *Macacus Rhesus* *more* closely related, to Man than is the anthropoid. The quantitative and qualitative tests disagree." In two other tests the ox and the sheep gave the same amount of precipitum as the baboon; while the whalebone whale, one species of baboon, the tiger, the African Antelope and *Man* all gave the same. "Surely a *reductio ad absurdum* of the whole theory!" says Morton. In still another test, the anthropoids (*viz.*, the chimpanzee and gorilla) and the horse, all gave the same amount, and Man, the civet cat, and the little Madagascan mammal called the tenrec, all gave the same. Morton continues: "What

curiosities of relationship are here revealed! Even Professor W. B. Scott has to admit: 'It could hardly be maintained that an ostrich and a parrot are more nearly allied than a wolf and a hyena, and yet that would be the inference from the blood tests.' The quantitative tests show that Man, the civet cat, the baboon, the tenrec, the whale, the tiger, the African antelope, the horse, the sheep, the chimpanzee and the gorilla are all included in a quite unsuspected family relationship! It certainly seems to prove a great deal too much!"¹⁸

VI. Geographical Distribution

Statement of alleged evidence: "Observation shows that groups of closely allied creatures are often found living in neighboring districts, and that when such a barrier as an ocean or a range of lofty mountains is passed, an entirely new fauna and flora are usually to be met with."¹⁹ "We know, for example, that a litter of European Rabbits was introduced on the small island of Porto Santo during the fifteenth century, and by the middle of the last century its descendants had become so distinct from the parent form that it was described as a 'new species.' "²⁰

There is no question that there has been some variation among plants and animals since they first appeared, but, as I shall show in a later section, modern science has proved that these variations are within certain well-defined limits which do not overstep the

¹⁸ Morton, *Ibid.*, p. 188 ff.

¹⁹ Castle, *op. cit.*, p. 47.

²⁰ Woodruff, *op. cit.*, p. 369.

boundary of the species. This evidence does not go beyond superficial modifications of structure which does not affect the stability of the species. If the Porto Santo Rabbits would no longer interbreed with the European stock, then the case would be proved, but so long as this is not the case, the description of the former as a "new species" is an erroneous classification. Nature has not defined it as such.

Evolutionists have made it appear that the problems are all on the side of the anti-evolutionists to solve. Such is not the case. One problem that the former have apparently neglected with reference to the alleged evidence under consideration is that of the distribution of the marsupials on the earth. If the kangaroos of Australia, the marsupial frogs of South America, and the opossums of America had a common origin, as the evolutionists must hold to be consistent, how are we to explain the geographical distribution of these animals? If the American marsupials "strayed around the bridge of land between Australia and Asia, across the Bering Strait, down through North America to the regions where they are now found in the Americas," Hamilton rightly asks, "why do we find no intergradients anywhere along the line of march, either to-day or geologically?"²¹ He adds, "The fact that opossums have been found as fossils in Europe only complicates the problem of geographical distribution."

VII. Adaptation of Organisms

In Lull's discussion of the Evidences of Evolution a section is devoted to Morphology and Adapta-

²¹ *The Basis of Evolutionary Faith*, p. 185.

tion, including chapters on coloration and mimicry, animal associations, parasitism and degeneracy, adaptive radiation, and the four diverse directions in which adaptations have been made for movement: (1) over the earth's surface, (2) beneath the surface, (3) above the surface into trees and finally into the air, (4) into water. An examination of each of these needs to be made.

1. *Coloration and Mimicry.* All students of nature cannot help being impressed with the many forms of mimicry found among animals. Among others, Professor Lull²² cites the protective mimicry of certain crabs which resemble white quartz pebbles of beach shingle; the geometric moths whose caterpillars are protectively colored so as to mimic the twigs; moths which resemble the rough bark in color; the leaf insect, *Phyllium*, resembling a leaf with rust spots on it; and the *Kallima paralecta*, a butterfly which simulates, not only the general hue of a dead or withered leaf, but also its petiole, midrib, venation, rust spots, and the clear places which sometimes occur in a diseased or injured leaf. There are the warning mimicry of a species of harmless snakes which resemble the poisonous coral snakes, and the edible viceroy butterfly which mimics the inedible monarch. There is the aggressive mimicry of certain spiders on golden rod, whose bodies so harmonize with the flowers as to make them invisible.

How are these remarkable phenomena of nature to be interpreted? Lull's answer is this: "Whatever may be the initial cause of color, its final perfection of

²² *Organic Evolution*, p. 241 ff.

adaptation for concealment, warning, or whatsoever service it may render may well be the result of the natural selection factor."²³ "There is little doubt, however, that whatever causes may be secondarily operative in the production of coloration and mimicry, natural selection is chief."²⁴ "Weismann, the leader of the Darwinian school, makes natural selection the only factor in the production of mimicry."²⁵

With all seriousness it must be asked: How can all these elaborate resemblances come about through natural selection? As Lull himself says, "In opposition to this (Weismann's view just referred to), it has been argued that the mimicry to be of any selective value must be practically perfect at once, and the minute or trivial variations, such as the exponents of natural selection postulate, would be of no possible survival value in mimicry. On the other hand, that masterpiece of mimicry, Kallima, goes too far, as a much less perfect imitation would be ample for all practical purposes and we can not conceive of selection taking an adaptation past the point of efficiency."²⁶

Someone has aptly said, "Natural selection may account for the survival of the fittest, but it cannot account for the arrival of the fittest." Take the case of the Kallima. There are the general hue of a dead or withered leaf, the petiole, midrib, venation, rust spots, and the clear places—all these mimic to perfection the dead leaf. What caused these separate mimicries? Is

²³ *Ibid.*, p. 240.

²⁴ *Ibid.*, p. 246.

²⁵ *Ibid.*, p. 246.

²⁶ *Ibid.*, p. 246.

it conceivable that a resident force would have the intelligence, much more, the power to produce them? The facts are all against the possibility of such marvelous mimicries coming about through a process of evolution. It puts a mind into nature for whose location no place can be found.

Furthermore, there is no evidence that these wonderful adaptations have developed through the course of countless generations. To say that they have, in the light of lack of any proof, is a case of begging the question. Let the intermediate forms be produced between the "generalized" form and the highly adapted ones. The only alternative which is scientific and which accounts for these facts is the fiat of a divine Creator.

2. *Animal Associations. Communalism.* Statement of alleged evidence: "Here is foreshadowed one of the factors which have aided so largely in placing man at the head of the animal kingdom."²⁷ Aside from the gregarious animals such as the buffalo, beaver, and pelicans, only two groups of organisms follow a communal life, the insects and mankind. Concerning the insects and man, Lull says that in each instance it represents "the final culmination of a long and important evolutionary line."

But where is the proof that the gregarious animals were ever non-gregarious, and that the ants and man were ever non-communal? This is simply an assumption. Absolutely no proof is available. From Solomon's day to this the ant has been communal. There is no record that man ever lived a non-communal

²⁷ *Ibid.*, p. 248.

life. Hence animal associations have nothing to do with the evolution question.

3. *Parasitism and Degeneracy.* Statement of alleged evidence: "As a means of adaptation for survival," says Lull, "parasitism must be looked upon as a remarkably successful device, although . . . the resultant evolution is one of retrogression, and ends in greater or less degeneracy according to the degree of parasitism and the relative rank of the animal at the beginning of its degenerating career."²⁸

Where is the proof that these degenerates at one time were not degenerates? Does Geology or life as we know it to-day give any evidence that an animal has undergone any degeneracy? It is simply begging the question to assert that a given animal was not at one time a parasite, and through countless ages gradually became adapted in structure to parasitic life. The fact that acquired characters cannot be transmitted to offspring is scientific proof of the fallacy of this mode of reasoning.

4. *Adaptive radiation.* Professor H. F. Osborn was the first to state clearly the idea of adaptive radiation. Lull quotes the following: "Each isolated region, if large and sufficiently varied in its topography, soil, climate, and vegetation, will give rise to a diversified mammalian fauna. The larger the region and the more diverse the conditions, the greater the variety of mammals which will result. From a primitive stem form radii go out in four diverse directions, the adaptations being mainly those of limbs and feet; also of

²⁸ *Ibid.*, p. 262.

teeth, but that of the teeth and feet do not necessarily parallel.”²⁹

While Osborn applied his law mainly to mammals it is also applied to other classes of animal life. “The impelling causes of adaptive radiation,” says Lull, “are the need of food and the need of safety, and while the minor roads along which evolution is possible are many and devious, they all lead in four general directions: over the earth’s surface where speed would become the great desideratum, beneath the surface to the subterranean realm, above the surface into the trees or finally into the air, and into the water to become denizens, wholly or in part, of the aquatic realm.”³⁰

An examination of this subject seems to reveal a fundamental contradiction which invalidates the whole evidence. It is held on the one hand that “the soft parts are generally more conservative,” while feet and teeth undergo marvelous changes. On the other hand, it is said that “a highly adapted or specialized form becomes, as it were, stereotyped and incapable of radical change.” In other words, when the evolutionist wants to see *change* he says the hard parts, feet and teeth, undergo marvelous changes, but when he has the specialized forms evolved, then these same hard parts become stereotyped. Furthermore, this idea of a part at one time undergoing “marvelous changes” and at a later time becoming stereotyped is contrary to the accepted definition of evolution; namely, that evolution is *continuous*, progressive change; and is entirely without support in science.

²⁹ *Ibid.*, p. 279.

³⁰ *Ibid.*, p. 280.

Let us examine a few of these radiations. Among insects all four of these adaptations are illustrated. The cockroaches are adapted to walking or running, the grasshoppers and crickets to leaping, many wasps, bees and mole crickets to digging, May-flies, dragon flies, water boatmen, backswimmers, water striders, whirligig beetles, mosquitoes, etc., to aquatic life, and flies, bees, wasps, etc., to flying. It is unnecessary for our purpose to describe all these manifold adaptations. Any student of nature is well aware of the multitudinous types of structure that the various insects possess.

Consider for a moment the mole-cricket, having a most wonderful structure for digging. How did this specialization develop? According to the theory it developed from some less specialized form. But what determined the particular shape of its tibiae (the digging organs)? Only on the hypothesis of an intelligent directive creative force could such an effective part be developed. More marvelous does it become when one is asked to believe that this force is resident in the animal itself. No evidence is forthcoming to prove that generalized forms of life are now in process of becoming thus specialized. The fatal weakness of the idea of adaptive radiation is thus seen. It is assumed that a certain animal has, through countless generations, adapted itself to its environment, and then this adaptation becomes a sure evidence of evolution. The highly specialized adaptations simply go to show the impossibility of the theory.

Another outstanding illustration: The aerial adaptation among insects, namely, wings, is exceedingly marvelous. The horse-fly is able to outstrip the

swiftest horse. How did its wing develop? We are told that it developed from a tracheal gill. Where are the intermediate steps, first, in the formation of the tracheal gill, and, second, in its transition state of development into a wing? Lull himself sees the weakness of this theory:

"The only trouble is that there is no living insect known wherein such a gill may be seen in a transitional state of development into a wing, and between the largest and most efficient gill and the smallest structure which could possibly support the animal in flight there is a material gap."³¹

No! this is not the only trouble. One very much desires to have a bit of evidence that it has taken place because wings are a reality. The law of present-day life is stability of life forms. For wings to have evolved, a different order of nature must have existed, for which there is no evidence. The scientific solution of this gap is simply that the intermediate forms never existed, and that this highly developed adaptation was always possessed by the animal. It is an adaptation made by its Creator.

Nevertheless, Lull describes the process in detail thus: "The development of flight among insects implies therefore, first, a departure from the old terrestrial habitat into the water. If this were done by a small insect, which was probably the case, the only adjustment necessary would be a reduction in the thickness and firmness of the cuticle so that the entire body might subserve the respiratory function. The insect was doubtless one of those living in damp situations,

³¹ *Ibid.*, p. 451.

such as the present-day Thysanura (Aptera) With increase in size and consequent muscular development, however, came a thickening of the cuticle and a consequent localization of the respiratory function. Gills arose through a necessary increase of respiratory surface, resulting in outpushings of the thinner portions of the body wall. These, which may be called blood gills, served to aërate the blood directly through their surface. Their subsequent invasion by tracheae, so that the blood merely acted as an intermediary between the tracheal air and that in the surrounding water, followed, and finally the tracheal gill was perfected. Next came the differentiation of the gill into a respiratory and a protective part, the latter becoming movably articulated with the body to aid in renewing the water over the respiratory gill. The subsequent enlargement of the gill-cover to embrace several gills, the suppression of the latter when, at the last molt, the creatures reëmerged on land as an adult, the use of gill covers as imperfect wings, and their final perfection as organs of flight complete the process."³²

We feel compelled to exclaim, "mirabile dictu!" What directs this process in such telic fashion? All this by resident forces? A bit of proof needed! Of course this is given by the author as hypothetical, but it is given seriously.

VIII. Changes under Domestication

Statement of alleged evidence: "Among domesticated animals and plants we know of numerous cases

³² *Ibid.*, p. 451-2.

in which the actual origin of new forms has been observed. These have often differed from their predecessors by amounts quite comparable with the differences by which natural species or even genera are separated. A notable example of this process is afforded by the numerous breeds of pigeons known to have arisen under domestication from a single wild species. We have no reason whatever for supposing that domesticated species are more mutable than wild species, and there is consequently every reason to believe that changes of a similar character take place in Nature.”³³

In consideration of this evidence at least three points must be noted. The first concerns Castle's statement that among domesticated animals and plants cases are known in which “the actual origin of new forms has been observed.” Let me ask: If a new species should interbreed with the wild species from which it was derived would the offspring be fertile or infertile? Professor Castle, as well as any geneticist, knows well enough that it would be fertile. Is it then a new species? Surely Professor Castle is fully aware of the Mendelian laws which were at work in this selective breeding. The “new” species, as any one acquainted with Mendel's laws knows, possessed no new traits. The barred rock chickens in my back yard do not possess a single new and different character. Certainly they lay more eggs, they are larger, their bars are almost perfect—all of which takes place according to well-established laws which I need not elaborate. All these “new” characters are found in the primitive

³³ Castle *op. cit.*, p. 48.

chicken. Selection and segregation of the chickens possessing the desired trait produced the effect.

The second point concerns the mutability of these "new" species. Why does Professor Castle, keep these "new" species so closely penned up or segregated? Let the dogs, chickens, flowers, fruit trees, etc., be turned loose in nature and see if they are not more mutable than wild species. My childhood experience with chickens proves their *mutability*. One season a flock of chicks hatched from the eggs of tame, lazy, barred rock chickens were raised in an orchard. During the hot summer months they forsook the coops to more arboreal roosts. Several months later, as winter came on, it was my work to catch and house these descendants of tame and lazy barred rock domestic fowls. Experience showed that in the first place they were again arboreal in their habits; and in the second, it seemed that the flying powers of their remote ancestors had not been forgotten. If there was so much reversion in the first generation, what would later ones have revealed?

In the third place, if there is "every reason to believe that changes of a similar character take place in Nature," let scientists cite at least one case. This leads us to the ninth so-called evidence of the list.

IX. Observed Facts of Mutation

Statement of alleged evidence: "Individual specimens of particular wild species are frequently found showing modifications which, if they occurred constantly in an isolated group, would afford a basis for the description of new species. In a few cases the actual occurrence of similar changes has been observed

in wild species of plants.”³⁴ “The changeableness of organisms is the fact that makes it impossible for the biologist to deny evolution. Every day we see differences in organisms of the same species, which differences have been brought about by differences in the surroundings, by the behavior of the organisms themselves, by cultivation by man; or by something inherited from their parents.”³⁵

Since mutation is used both as an evidence and as a factor of evolution, I shall confine my present discussion to its nature, leaving those elements which concern variability as a factor of evolution for a later chapter. All of the questions raised against the evidence derived from changes under domestication need to be raised here. I shall enlarge on the last only. What are the facts as to variability among plants and animals? The fact of variation, all will admit, but the crucial questions concern the kind, nature, and permanence of these observed mutations. One great difficulty to be recognized in a scientific answer to these questions necessarily is the fact that we are unable to see what has taken place in all animals over a long period of time. Nevertheless, there are instructive observations to be noted which carry much weight.

1. In a limited way we have access to pictures, mummified remains and historical descriptions of plants and animals as far back as ancient Egypt, fully three thousand five hundred years ago. The pictures of men and animals on many of the ancient buildings of Egypt, Babylon, Nineveh, etc., are identical with

³⁴ *Ibid.*, p. 48.

³⁵ Galloway, *Text Book of Zoology*, 3rd ed.

those of to-day. Moses' description of clean and unclean animals 1500 B. C. corresponds exactly with the same to-day. Aristotle also described the flora and fauna of his day. The mummified remains of men, cats, crocodiles, and cattle are precisely like those of to-day. Surely a period of over three thousand years ought to be long enough to show a little evolution. If there has been absolutely no change among these animals over so long a period, is it not scientific to assert that stability rather than change characterizes these animals at least? And a law true of a few animals is certainly true of all. Is not a scientist stepping outside the realm of science if he is asking us to believe that the changes have been so imperceptible that they could not be discerned in 3500 years? What is his proof? Does his reasoning not become mere speculation? I am aware, indeed, of the geological claim, and shall consider that in a later section; but the point to be observed here is simply one of actual fact: in the fairly large number of plants, animals, and men of three thousand five hundred years ago whose pictures, descriptions, or mummified remains are observable to-day, there is absolutely no difference from the present flora and fauna of the same kind.

2. The consensus of opinion among scientists, evolutionists and non-evolutionists, is to the effect that life so far as it is known to-day is not in process of change, but shows a fundamental stability.

Hugo de Vries, of the University of Amsterdam, says: "Fluctuating variation cannot overstep the limits of the species even after the most prolonged selection; still less can it lead to the production of new perma-

nent characters.”³⁶ M. Blanchard holds: “All experimentation and observation point out that, while the mutability of organisms in a state of nature shows itself in various degrees, yet, in its most wonderful manifestations, it remains confined within a circle beyond which it is impossible to pass.”³⁷ Professor T. H. Morgan, of Columbia University, writes: “The mutation theory destroys species; it does not originate them.”³⁸ Professor Bateson said in his Presidential Address, in 1914, before the British Association: “We have done with the notion that Darwin came latterly to favor, that large differences can arise from the accumulation of small differences. Such small differences are often mere ephemeral effects of conditions of life, and as such are not transmissible; but small differences, even when truly genetic, are factorial like the larger ones, and there is not the smallest reason for supposing that they are capable of summation.”³⁹ In Professor Charles’ conclusion of his discussion on “The Mutation Theory and Heredity,” he says: “So then variations, whether slight or marked, whether arising gradually or suddenly, whether occurring naturally or artificially, cannot be shown to cause transformation from one form to another, passing over the dividing line between species, genera and other divisions.”⁴⁰

Even Darwin admitted this point: “There are two or three millions of species on earth, sufficient field,

³⁶ Quoted by J. D. Charles, *Fallacies of Evolution*, p. 28.

³⁷ Translated and quoted from *La vie des etres animés*, p. 102, by J. D. Charles, *Ibid.*, p. 28.

³⁸ *Experimental Zoology*, p. 233, quoted by J. D. Charles, *Ibid.*, p. 28.

³⁹ Quoted by J. D. Charles, *Ibid.*, p. 29.

⁴⁰ *Ibid.*, p. 30.

one might think, for observation. But it must be said to-day that in spite of all the efforts of trained observers, not one change of a species into another is on record."⁴¹ Graebner quotes from others thus: "Dr. N. S. Shaler, Professor of Geology in Harvard, asserts that 'it has not been proved that a single species has been established solely or even mainly by the operation of Natural Selection.' Professor Fleischmann, of Erlangen, has gone so far as to say that 'the Darwinian theory of descent has, in the realms of nature, not a single fact to confirm it.' . . . Professor Owen declares that 'no instance of change of one species into another has ever been recorded by man.' Dr. Martin, Samtaetsrat, of Germany, who has conducted some highly technical experiments in the blood reactions of various animals and man, on which he bases his conclusions, says: 'Since Darwin, we have been accustomed to consider the concept 'species' as something insecure and unstable. The whole organic world must be thought of as fluid if the evolution theory is to find room for action. It required, indeed, all the great investigator's keenness to fence his theory against the difficulty which the lack of transitional forms occasioned, and against the fact that the rise of new species has never been observed, much more against the fact that all processes in artificial breeding have not sufficed to fix permanently the changes which have been attained. We admire the clever structure of the theory, but there is no doubt that the obstinacy with which the organism clings to its species-characteristics is

⁴¹ *Life and Letters* Vol. III, p. 25, quoted by Th. Graebner, *Evolution: An Investigation and a Criticism*, p. 63 ff.

the point on which it is mortal. One is, in fact, as much justified in speaking of a struggle to retain these characteristics as to speak of a struggle for existence. . . .

"Mr. Huxley is forced to this admission: 'After much consideration, and with assuredly no bias against Mr. Darwin's views, it is our clear conviction that, as the evidence stands, it is not absolutely proved that a group of animals, having all the characters exhibited by species in nature, has ever been originated by selection, whether artificial or natural.' And again, 'Our acceptance of the Darwinian hypothesis must be provisional so long as one link in the chain of evidence is wanting; and so long as all the animals and plants certainly produced by selective breeding from a common stock are fertile with one another, that link will be wanting.'

"In a recent book, 'Creation or Evolution? A Philosophical Inquiry,' George Tichnor Curtis says: 'The whole doctrine of the development of distinct species out of other species makes demands upon our credulity which are irreconcilable with the principles of belief by which we regulate, or ought to regulate, our acceptance of any new matter of belief.'"⁴²

Why quote so many authorities? A little thought will reveal the strategic character of this alleged evidence. Professor Lull of Yale, one of the leading present-day exponents of evolution, describes its importance thus: "Variation is the first and most fundamental evolutionary factor Without variation no change could occur and evolution would be impossible."

⁴² Graebner, *Ibid.*, pp. 63, 64.

It must be and is admitted that all the foregoing evidences at best lead only to a *presumption* in favor of evolution. And many of these, under closer scrutiny, yield a decidedly opposite conclusion. The pivotal point, then, is: Does actual observation give us any proof that variation is taking place among plants and animals? If there is no evidence of change going on to-day, the chief and ultimate proof of evolution must be sought for elsewhere, and this is actually the case. Scientists rest the ultimate proof of evolution in the evidence furnished by the geological succession of organisms. This becomes the chief pillar of support of the theory, without which it is devoid of any direct evidence. This is the reason for the extended list of quotations of world-famed scientists, authorities second to none who admitted the fallacy of this central basis of evolution. The late Professor William Bateson, whose scholarship and authority on scientific matters was out-classed by none, grasped the situation, and in the thirteenth edition of the *Encyclopedia Britannica*, summed up the position of present-day science thus:⁴³

“Evidence formerly regarded as proof of abundant contemporary variability in the species of animals and plants must be submitted to searching tests before it can be so accepted. Observations of variability, once deemed adequate, are now seen to be capable of quite different constructions. Proof that an observed departure from type is a contemporary genetic variation can only be obtained in exceptional cases which have been critically observed under experimental conditions. . . . The existence, therefore, of a multitude of vari-

⁴³ Art. *Mendelism*, Ency. Brit., Vol. 30, pp. 868 ff.

etal forms, so far from simply providing a convenient basis upon which a theory of evolution of species can be erected, becomes itself an antecedent problem; and instead of asking, as they used to, how the species have been built up out of the varieties, biologists are rather concerned to discover whence and by what process these variations have come to exist. The belief that substantial genetic change commonly accrues by summation of impalpable differences has been generally abandoned as devoid of evidential foundation. . . . The idea that a characteristic could in any other way increase as a result of selection is out of place in an exact or even a logical science.

“Whether the evidences of authentic variation remaining after the deduction of spurious testimony has been made, suffice as a basis of evolutionary theory has been questioned by competent naturalists. Lotsy, for example, maintains that we have no proof of contemporary variation arising otherwise than as a consequence of crossing. . . .

“The term *mutation* introduced by de Vries, is now generally accepted to denote definite genetical variations which are sensibly discontinuous. . . .

“In allusion to this and other difficulties, which genetic research has forced into prominence, the question is sometimes asked whether the theory of evolution holds its place so firmly as it did, or, more crudely put, whether Mendelian discovery has not ‘upset Darwinism.’ It should therefore be stated explicitly that, in spite of all the objections with which the doctrine of the origin of species by descent is now seen to be beset—objections of which the strength is far more clearly known than before—and though as to the manner by

which new species have come into existence geneticists adopt for the most part an agnostic attitude, yet all agree that the lines of argument converging to support the theory of common origin are so forcible and so many that no alternative can be entertained.

"The geological record is conclusive.

"The following may be taken as a cogent instance of this: If Angiosperms had existed in the carboniferous age, their remains must have been preserved; therefore Angiosperms have arisen since that time, and we cannot conceive whence they came if not by descent from the pre-existing plants. Common descent, though rarely if ever a proposition demonstrable in any detail, ranks as an axiom. . . .

"It is not merely in regard to the mode by which species have arisen that agnosticism has prevailed. While unwilling to accept adaptation, with Darwin, as a summation of happy accidents, we have no alternative to offer, nor is there in the attempts of various experimenters to find that organisms transmit to their posterity structural emendations in response to parental experience anything which sensibly alleviates the difficulty. Most of these claims are obviously faulty and few require serious notice.

"Each step in the progress of this branch of science has rather compelled the recognition of genetic determinism; and the hope that by change in the conditions of life or by any external influences significant alteration can be induced in succeeding generations, whether of organisms amenable to experiment or of the human population, must be abandoned."

In the article "Genetics" he writes thus:

"Genetic analysis has shown that the appearance

of variability as a contemporary and widespread phenomenon is largely illusory. . . . That the forms of life have been evolved from dissimilar precedent forms we know from the geological record, but as to the process by which this evolution has come to pass we are still in ignorance."⁴⁴

If, then, the whole weight of the evolution theory rests upon the evidence of geology, the examination of this must be searching and impartial. Instead of evolution having many bases it has only one, and this one must be subjected to the closest scrutiny. We are willing to state that a single basis, if unquestionably established by the results of the most thoroughgoing tests of science, is sufficient to establish evolution as a law. Let us advance to this evidence.

X. Geological Succession of Organisms

Statement of alleged evidence: "In the rock strata of the crust of the earth we find abundant plant and animal remains in the form of fossils. In the most recent strata we find remains similar to the species of the present time, whether of mollusks, of fishes, or of mammals. The further back we go in the earth's history the less similarity we find between the fossils and the present-day life. The earlier strata show only invertebrate remains; later the fishes appear, although much simpler and more primitive than the fishes of today; later still amphibians, reptiles, mammals, and birds; and last of all man's remains."⁴⁵

After reading the above statements at least seven

⁴⁴ *Ibid.*, Vol. 30, p. 165.

⁴⁵ Galloway, *op. cit.*, p. 479.

questions are raised which need to be answered on the basis of evidence. They are as follows:

1. To what extent are fossils reliable for the purpose of arriving at an accurate knowledge of geologic life?

2. Is the evidence for the remote geologic life satisfactory?

3. Is recent Paleontology more satisfactory?

4. Does Geology reveal a sufficiently complete succession of animal and plant life?

5. Is the "succession" consistent?

6. Is the "succession" progressive?

7. Is the chronological basis for the geological ages valid?

1. *To what extent are fossils reliable for the purpose of arriving at an accurate knowledge of geologic life?* The real difficulty is seen in the problem of reconstructing animals or plants. True, indeed, many fossils are quite perfectly preserved, but O'Toole says: "The stone record of bygone days has been so defaced by the metamorphism of rocks, by the solvent action of percolating waters, by erosion, weathering and other factors of destruction, that, like a faded manuscript, it becomes, even apart from its actual *lacunae*, exceedingly difficult to decipher."⁴⁶ It is to be granted, however, that one has at his disposal certain facts of comparative anatomy that enables him to fill up the missing parts with some degree of certainty. But as O'Toole says, these reconstructions of extinct forms must not be taken too seriously. He cites the

⁴⁶ O'Toole, *The Case Against Evolution*, p. 89

case of the mammoth, whose skeletal remains had been preserved more completely and perfectly than those of other fossil types. Reconstructions of these had to be revised considerably after the discovery of a complete carcass which had been buried in the ice, thus showing "the inadequacy of fossil remains as a basis for exact reconstruction."

This point assumes a position of considerable importance in some of the links of geologic development, especially in that of the horse and man. It is certain that there would be necessitated a similar revision of the Eohippus, Mesohippus, Merychippus, Pliohippus, etc., were complete carcasses of the same found. Clothing a very unhorselike skeleton with flesh, skin and hair similar to a horse, does not make the animal a horse. The same must be true of Pithecanthropus, Heidelberg Man, Neanderthal Man, Piltdown Man and Cro-Magnon Man. To give to each of these great ape-like protruding jaws, and to clothe them with an ape-like coat of hair is based on imagination, not on facts.

2. *Is the evidence for the remote geologic life satisfactory?* Naturally we would expect a carefully graded series of animals from the simplest to the more complex, even though the record becomes gradually dimmer. But what do we find? "The very simplest known fossils, the trilobites, of which nearly a hundred species are known in America alone, and certain cephalopods (sea-snails) are animals highly complex in structure, and regarded by Le Conte as 'hardly lower than the middle of the animal scale.'"⁴⁷

⁴⁷ Quoted by More, *The Dogma of Evolution*, p. 100.

In Dana's Manual of Geology occurs the following noteworthy remark concerning paleozoic time: "The Lower Cambrian species have not the simplicity of structure that would naturally be looked for in the earliest Paleozoic life. They are perfect of their kind and highly specialized structures. No steps from simple kinds leading up to them have been discovered; no line from Protozoans up to Corals, Echinoderms, or Worms, or from either of these groups up to Brachipods, Mollusks, Trilobites, or other Crustaceans. This appearance of abruptness in the introduction of Cambrian life is one of the striking facts made known by geology."⁴⁸

What do these facts mean? If Le Conte is correct, then half of the geologic history must be guessed at. That these Cambrian forms arose through a process of evolution is refuted by the simple fact that there is no evidence for the Pre-cambrian forms. What hinders one from believing that these Cambrian forms are remnants of the earliest forms of life existing on this globe? If no earlier forms can be produced, what happens to the evolutionary theory? Furthermore, since these forms are entirely aquatic what is unscientific about inferring that these fossil beds were formerly ocean beds contemporaneous with fossil beds containing land-animal and plant fossils?

3. *Is recent Paleontology more satisfactory?* Whence came the recent placental mammals? How did our domestic animals originate? Where are the connecting links between man and his supposed ape-

⁴⁸ Fourth Edition, p. 487.

like ancestors? Surely recent geologic history ought to be fuller and plainer. Concerning the first question Bateson answers: "Their origin is one of the great outstanding problems in paleontology." To the second, no answer is given. The ancestors of man are of supreme interest to us. Darwin's "hairy, tailed quadruped" has never been found in fossil deposits; it is entirely speculative. Nor do *Pithecanthropus Erectus*, Neanderthal, et al., help us any. None of these is the "Missing Link." "The persistent talk about 'the Missing Link,' in the singular number," says Morton, "is singular indeed. It indicates to us with what small supplies of evidence the human imagination prepares itself to be convinced Of all the supposed millions of intermediate forms, not one survives in the paleontological records."⁴⁹

What is the significance of these facts? At least one important conclusion follows: the genetic relation of placental to non-placental, and from man to the ape, from the standpoint of Geology, becomes merely hypothetical.

4. *Does Geology reveal a sufficiently complete succession of animal and plant life?* As was stated in number two of this series, "evolution must begin with animals high up in the scale of differentiation." Professor More, summarizing the facts from the Geological ages following the Cambrian, states:

"In the next period, the Ordovician, fish-like organisms appear which have complete dermal plates and have acquired the power of locomotion. Thus in a

⁴⁹ *The Bankruptcy of Evolution*, p. 137.

period of great quiet in which no break in time can be noted, a most important new type, with the power of locomotion by swimming and vastly different from shell-fish, suddenly appears.

"The acquisition of a vertebra is acknowledged to be one of the most important advances in structure. A vertebra is found first in the fishes of the Silurian age. Paleontologists have imagined many supposititious forms of earlier fishes to link the vertebrates with the earlier fishes which have notochords, but the simple fact is that when the Silurian vertebrates appeared they did so without any transitional form having been preserved.

"Again, one of the greatest steps in evolution occurred when amphibians with feet and legs and with an air breathing apparatus appeared in the Carboniferous age. It is customary to assume that these animals developed from fish which lived in such shallow water that they were driven to adopt land locomotion and life because of lack of food. But we have no relics of amphibians in a transitional state in the Sub-carboniferous age. 'Relics of amphibians appear in abundance only in later Coal Measures. They were already differentiated into five sub-orders.' The whole gap of this enormous change has to be filled by this single discovery in the Sub-carboniferous period" of "six double imprints, in which the track period of the hind foot partially covers that of the front foot. The trail of a tail an inch wide accompanies the footprints." (Quoted from Chamberlain and Salisbury, Vol. II, p. 537). "The positive evidences of so momentous a change of structure to be derived from six

foot prints," comments More, "seems a slender one on which to base the continuity of evolution."⁵⁰

Continuing More's summary: "We now pass to the Jurassic period. Just as land locomotion appeared fully developed so also does the presence of feathered birds, and their ancestry is admitted to be a puzzle. 'The ancestors of the pterosaurs (reptiles with batlike wings) and the birds may doubtless have been closely allied, far back towards the point of common saurian or stegocephalian divergence, but there is *no evidence* whatever that the pterosaurs developed into true birds. The two are types of analogous and parallel evolution and not of successive relationship. The earliest known bird, *Archaeopteryx-macrura* (two nearly perfect skeletons have been found) shows an advanced state of evolution, and at the same time clear traces of reptilian ancestry Its head and brain were bird-like, its anterior limbs adapted to flying in bird-like fashion, not in pterosaurian fashion, its posterior limbs modified for bird-like walking, and most distinctive of all, it was clothed with feathers.' (Quotation from Chamberlain and Salisbury, Vol. III, p. 102). We might pass over all these points, but the appearance of feathers as an apparatus for flying is as nearly impossible a fact to explain by evolution as can be imagined. By no known theory can a feather be accounted for; unless a scale or a dermal plate can change to a feather in a single jump there is no reason or advantage for the change during the intermediate stages, and a single jump savours too strongly of special design and creation. In addition, the complicated apparatus of bones,

⁵⁰ More, *op. cit.*, pp. 154, 155.

muscles, and nerves, for flying must have developed during the time the scales or dermal plates were changing to feathers and while there was no possibility of flight or other use for this complex modification. The most ardent believer in Creation by Design never exceeded this submission of the reason of the evolutionist to the dogma of the prescience of Natural Law. So far as I can learn evolutionists have wisely and persistently avoided the solution of this problem."

Nor does one receive any consolation in an examination of the botanical geological tree. It is far less complete. Moreover, it must be recalled that Bateson said (quoted earlier in the chapter): "The geological record is conclusive. To take one most cogent instance: if Angiosperms had existed in the Carboniferous age their remains must have been preserved; therefore Angiosperms have arisen since that time, and we cannot conceive whence they came, if not by descent from preëxisting plants."

What is the solution of the Angiosperm problem? Is not Bateson's remark simply an acknowledgment of the extremely incomplete nature of the geologic evidence? He says, "The geological record is conclusive." Why, then, is it silent on the origin of the seed-bearing plants? More says, it "is one of the impossible questions to explain by evolution."⁵¹ "Where is the difficulty?" asks Bateson. "If the angiosperms came from the carboniferous flora why may we not believe the old comfortable theory in the old way? Well, so we may, if by belief we mean faith, the substance, the foundation of things hoped for, the evidence of things

⁵¹ *Ibid.*, p. 157.

not seen. In dim outline evolution is evident enough. From the facts it is a conclusion which inevitably follows. *But that particular and essential bit of the theory of evolution which is concerned with the origin and nature of species remains utterly mysterious.* We no longer feel as we used to do, that the process of variation, now contemporaneously occurring, is the beginning of a work which needs merely the element of time for its completion; for even time cannot complete that which has not yet begun." Well does More comment that "these are perilous words for those who are trying to build a comprehensive system of sociological and ethical knowledge on certain facts of evolution by variation."⁵²

Professor D. H. Scott is also helpless. In his recent book, "Extinct Plants and Problems of Evolution," he writes, "The origin of the seed plants is still an unsolved problem."⁵³

To make matters worse, angiosperms have been discovered in the "Pennsylvania" subdivision of the Carboniferous System of geology.⁵⁴ "This discovery at one jump takes us back through the Jurassic, the Triassic, and the Permian into the Carboniferous."⁵⁵ What is the scientific solution of this problem? The Angiosperms were contemporaneous with Carbonifer-

⁵² Quoted by More from his "Address before the American Association for the Advancement of Science," published in *Science*, p. 58, 1922, *op. cit.*, pp. 158, 159.

⁵³ Quoted by Price, The Princeton Theological Review from Scott's work *Extinct Plants and Problems of Evolution*, p. 208.

⁵⁴ Price, Art. *Modern Botany and Organic Evolution*, The Princeton Theological Review, p. 59.

⁵⁵ *Ibid.*, pp. 59, 60.

ous flora! They continued unchanged through the Permian, Triassic, Jurassic, Cretaceous, even to the present. Instead of evolution having taken place among the Angiosperms throughout these countless millenniums of the geologists, absolute stability of type is the testimony of the rocks from the Carboniferous era to the present. One thing is certain: the Angiosperms could not be both contemporary with, and yet derived from, the ferns. Hence it follows that they were not derived from them. What hinders us from believing that the Carboniferous was contemporary with the Cretaceous age? If this is true, what effect does this have upon the validity of the chronological scheme for succession of geological ages? This question shall be reserved for answer in a later section.

5. *Is the "succession" consistent?* The illustration of the Angiosperms just given shows that the geological theory is inconsistent with itself. Modern seed-bearing plants found in the Carboniferous age! Professor Price cites several interesting examples. "In 1921 Professor Seward himself collected in Greenland and brought with him back to England a slab of Cretaceous rock, 'showing on one side of the slab a Dicotyledonous leaf, like that of a Plane, and on the other the leaf of one of the old Cycads.'"⁵⁶ The Cretacean Plane Tree and the Triassic Cycad must have lived contemporaneously. Professor Price also cites an experience of Mr. John T. Reid, a mining engineer, who discovered a big fossilized horse's foot in a Cretaceous (Laramie formation) coal mine in Utah. A one-toed horse's foot in a Cretaceous bed! Such is the undeni-

⁵⁶ *Ibid.*, p. 58.

able fact. According to the accepted theory, this implies that the actual ancestors of the modern horse may have been contemporary with the big dinosaurs. They lived ages before Eohippus and Orohippus.

Still another illustration given by Professor Price: "A little over two years ago a piece of limestone rock was found near the summit of the southern part of the Humboldt Mountain Range in Nevada, which showed an impression looking most amazingly like the imprint of a shoe. On close examination, the stitches in the sole of the shoe could be very clearly distinguished, even the twist of the thread being clearly seen, in one portion the row of stitching being doubled. . . . But the puzzle for the geologist is that the rock in which this fossil imprint was found had already been classified by the geologists very positively and definitely as a Triassic limestone."⁵⁷ A human being contemporary with the Triassic age!

These examples are sufficient to serve our purpose. Such inconsistencies as these have a profound meaning. They make imperative a reëxamination of the whole question as to whether fossils are reliable as age-markers.

6. *Is the "succession" progressive?* To begin with, the opinion of Huxley is illuminating. He marvels at the smallness of the total change: "There are two hundred known orders of plants; of these not one is certainly known to exist exclusively in the fossil state. The whole lapse of geological time has as yet yielded not a single new ordinal type of vegetable structure.

⁵⁷ Art., *Two Startling Fossils that Confound Evolution*, The Sunday School Times, June 14, 1924.

. . . No fossil animal is so distinct from those now living as to require to be arranged even in a separate class from those which contain existing forms.”⁵⁸ I quote also from Morton: “Of the thirteen known orders of the Class Crustacea, all save two are in existence to-day, and those two disappeared in the Carboniferous Period. Crustaceans are the dominant fossils of the Cambrian system. . . .”

“In the Protozoic periods, the earliest periods of life, we find the great classes of Mollusca—Gastropoda, the class that includes such creatures as limpets, whelks, snails, slugs; Cephalopoda, the class which includes the nautilus and the cuttle-fish; Lamellibranchiata, the class which includes the oyster, cockle and mussel—and the ages likewise pass over them while evolutionary forces remain dormant. ‘The highest type of mollusc known to scientists,’ says Townsend (“Collapse of Evolution,” p. 17), ‘is the one that appeared far back in geological history. The same may be said of the earliest fish, reptilian, and mammalian families; they each appeared fully equipped at the outset in the plenitude of their power, and never since have shown the least elaboration or improvement.’ . . . In the Jurassic system, of the Mesozoic period, the middle period of life upon the earth, we find the fossils of spiders, centipedes, cockroaches, grasshoppers, beetles, dragonflies, May-flies, and even the wing of a butterfly; the nautilus and the cuttlefish persist, and survive right down to our time; and ferns and conifers are found in abundance. The fossils of the

⁵⁸ Quoted by More, *The Dogma of Evolution*, p. 152.

Carboniferous system include scorpions and beetles and crickets and May-flies. . . .

"How does all this come about if Evolution is a real law of life? The *permanence of types* stands out with immense emphasis from the geologic records."⁵⁹

No comment is necessary on these facts, which are so plainly found in the fossils. The student of the rocks must weigh all these facts for himself and come to conclusions independently. If, as we have found, there is no evidence for variation and progress in life as we know it to-day, and a candid examination of the geological evidence yields the same conclusion, to what stage have we come in our evolutionary discussion? This is a scientific question. On this ground it must be solved. The test of adequate evidence must be passed. Yet a still more pertinent question remains. Indeed, it is the crux of the whole evolutionary question.

7. *Is the chronological basis for the geological ages valid?* Throughout our entire discussion of the geological evidence we have been forced many times upon this supreme question of Geology. Already we have met several groups of facts which make one raise the question. Briefly to review them: The fact that the "oldest rocks" contain fossils only halfway down the scale causes one to question whether there were ages earlier in which the other half of evolution could have taken place. Their absence points to the fact that these fossil forms, at least, represent the first forms of life on this earth. These complex forms came to exist then, not through a

⁵⁹ *The Bankruptcy of Evolution*, pp. 130-132.

process of evolution, but by the only other alternative, creation. If these forms were created, it is reasonable to suppose that the others were. Hence we should conclude that the fossils are not age-markers.

The highly unsatisfactory nature of recent Paleontology makes one question again whether intermediate forms existed between the placental animals and the non-placental, and man and some man-like ape. The absence of evidence points to non-existence of the thing in question. Non-existence of intermediate forms means no genetic relation. No genetic relation means no evolution. This again would indicate that the fossils do not mark succession of ages.

The incomplete nature of the geological record confirms and enlarges upon the conclusions drawn from the last two points. The sudden appearance of new and perfect animals, and the tremendous gaps do not point to succession of ages. We need a gradual succession of animals with all the intermediate stages to outline clearly the way.

The many inconsistencies seem to invalidate the theory. An inconsistency means that the hypothesis does not account for *all* the facts. The hypothesis must then be abandoned as worthless. A new hypothesis which does take into recognition all these facts must be formulated.

If the "succession" is not progressive, how do we know that we have a succession? If many of the same forms of life can be found in all rocks and most forms in some rocks, is it not reasonable to believe that instead of a succession of ages we have contemporaneousness of fossils? To illustrate my point: Suppose a great catastrophe should overtake this world at this

time and all forms of life should be changed to fossils, what would we find? If the oceans should be partially moved, we would find, say twenty miles east of what is now New York, fossil forms similar to much of the Paleozoic Era. In what had been the Amazon River valley, one would find much of the upper Paleozoic and Mesozoic Eras.

The peculiar flora and fauna of all the continents would reveal a geological map of as many different kinds of rocks as are found in our present geological system. From the simplest Protozoa, if any trace would be left in rocks, up to man—all these would be found distributed just as the various geological rocks are distributed. For instance, each city would leave its group of human fossils, while through the country of the temperate zones the numberless arthropods, occasional mammals, birds and reptiles would be found. Where a city has been built on the water the upper stratum would contain fossils of man; the lower, aquatic. Where a city of ancient times has since become ocean bed, this catastrophe would leave a Protozoic on top of mammal stratum.

Before examining the facts which enter into the matter of determining the subdivisions of geological history, it is well to study the views of eminent geologists on the subject. Dana gives the following means of correlating the stratified rocks of the globe:

“1. Order of Superposition.—When strata are little disturbed, vertical sections give the true order in those sections; and so also may outcrops of inclined strata over the surface of a country. . . .” He gives several precautions that are necessary, such as observing whether or not the strata have been folded,

whether or not they are continuous, and whether or not they overlie one another conformably. He asserts that this means of correlation gives no aid in comparing the rocks of distant or disconnected regions.

"2. Color, Texture, and Mineral Composition. —These characteristics may sometimes be used to advantage, but only within limited districts and always with distrust. . . .

"3. Although mineral composition is ordinarily unsafe, it has value when two or more conformable strata of constant mineral characteristics accompany one another. . . .

"4. Fossils.—The criterion for determining the chronological order of strata dependent on kinds of fossils takes direct hold upon time, and, therefore, is the best; and, moreover, it serves for the correlation of rocks all over the world. *The life of the globe has changed with the progress of time. Each epoch has had its peculiar species, or peculiar groups of species.* Moreover, the succession of life has followed a grand law of progress, involving under a single system a closer and closer approximation in the species, as time moved on, to those which now exist. It follows, therefore, that *identity of species of fossils proves approximate identity of age.*"⁶⁰

Le Conte says: "Evolution . . . is the central idea of geology. It is this idea alone which makes geology a distinct science. This is the cohesive principle which unites and gives significance to all the scattered facts of geology—which cements what would

⁶⁰ *Manual of Geology*, Fourth Edition, p. 399 ff.

otherwise be a mere incoherent pile-up of rubbish into a solid and symmetrical edifice.”⁶¹

“Life, since its first introduction on the globe,” says W. B. Scott of Princeton, “has gone on advancing, diversifying, and continually rising to higher and higher planes. We need not stop to inquire how this progression has been effected; for our present purpose it is sufficient to know that progress and change have been unceasing and gradual, though not necessarily occurring at a uniform rate. Accepting, then, the undoubted fact of the universal change in the character of the organic beings which have successively lived on the earth, it follows that rocks which have been formed in widely separated periods of time will contain markedly different fossils, while those which were laid down more or less contemporaneously will have similar fossils. This principle enables us to compare and correlate rocks from all the continents and, in a general way, to arrange the great events of the earth’s history in chronological order.”⁶²

These viewpoints of a few of the leading geologists are sufficient to express the accepted thought on this fundamental question of geology. Certain conclusions seem inevitable:

1. The means of the correlation of rocks from all continents and of arranging the great epochs of the earth’s history in chronological order is found in the fossils of the rocks. The rank of a fossil in the geological tree of evolution determines the “age” of the rocks containing the same; the simpler the fossil, the

⁶¹ *Elements of Geology*, p. 421.

⁶² *An Introduction to Geology*, p. 521 ff.

older the rocks; the more complex the fossil, the more recent the age.

2. Geologists appeal to the theory of biological evolution for the key to interpret geological history. Instead of geology being the ultimate proof of evolution, as biologists claim, the latter is the key to the former. In an examination of the validity of the evolutionary theory any student at once perceives the full import of this logic. It is a notable case of reasoning in a circle. On the one hand, Professor Bateson, the leading authority on biological science, after having stated the conclusion of modern science to the effect that life as we know it to-day knows of no variation or mechanism to produce the same, rests the ultimate proof on geology when he says, "The geological record is conclusive"; while, on the other hand, Professor W. B. Scott, the leading geologist says, "Accepting, then, the undoubted fact of the universal change in the character of organic beings, . . . it follows that rocks . . . will contain markedly different fossils." It is clear that evolution cannot at the same time be, on the one hand, the sole key to geological "ages" and, on the other, the leading lesson taught by geology. It is granted indeed that if on grounds independent of the fossils, the same geological ages could be marked off, as has been done by means of fossils, the case would be different. Our only problem at present would be to determine whether or not there is a genetic relation among the fossils of the various ages. So, then, the "established" science of geology must humble itself, and undergo a reëxamination which threatens the whole structure built up by its exponents.

Are apologies necessary for re-opening a question which geologists in general consider closed? It is not a mark of disrespect to these eminent scientists and the work they have done to produce facts which lead to conclusions different from those generally accepted; for, I take it, all scientists are open to the truth. No one cares to advance a hypothesis that does not comprehend all the known facts. Facts have but one rational interpretation. If a class of facts admits of a simple and perfectly natural interpretation, it is folly to cling to a fantastic theory which stretches one's imagination beyond the breaking point.

It may be puerile to add that the source of facts, whether from a school boy or a learned university professor, has nothing at all to do with their meaning. Facts stand or fall by their own strength. For one to allude to a fellow-geologist as "the man who, while a member of no scientific body and absolutely unknown in scientific circles, has . . . had the effrontery to style himself as a 'geologist' "⁶³—this being the sole attempt to refute his arguments—certainly proves that the critic is guided in his thinking more by the status of the speaker than by the intrinsic value of the thing spoken.

We are led to suspect Professor Miller's own status, because of the error in his statement, for the man concerning whom he was speaking is a member of the same scientific body as he himself is. Instead of labeling a geologist as "a fundamentalist harboring a

⁶³ Quoted from *Science*, June 30, 1922, pp. 702, 703, by O'Toole, *The Case Against Evolution*, p. 97.

geological nightmare",⁶⁴ why did not Professor Charles Schuchert of Yale refute the geologist in question by producing facts? "Mere snobbery and abuse," points out a fair-minded critic, "is not sufficient to answer a difficulty of this nature, and we regret that men, like Schuchert, have replied with more anger than logic. The orthodox geologist seems unnecessarily petulant, whenever he is called upon to verify or substantiate the foundational principles of lithic chronology. . . . To claim exemption, however, from the universal criterions of criticism and logic is a subterfuge wholly unworthy of a genuine science."⁶⁵

Inasmuch as "The New Geology," by Professor George McCready Price, whose views we follow, is so diametrically opposed to the long accepted "orthodox geology," it is worth our while to consider some of the reviews of his work.

The first thing that strikes one's attention is the disrespectful, well-nigh disdainful, attitude which is taken toward his work because "he is not recognized as having any standing among the scientific men of the country and his name is not included in the book entitled 'American Men of Science'. He is not a Fellow of the Geological Society of America, and, as far as I am aware, is not eligible for membership." A paleontologist of considerable note says concerning him: "He is not a geologist, never having studied it anywhere, is a member of no geologic society and does not understand it."

⁶⁴ Quoted from *Science*, May 30, 1924, p. 487, by O'Toole, *The Case Against Evolution*, p. 97.

⁶⁵ George Barry O'Toole, Ph. D., S. T. D. *The Case Against Evolution*, p. 98.

This same reviewer says that "Price is unable to tell one fossil from the other and so does not know whether a bed is 'young' or 'old'." One may reasonably ask: If one disregards the fossil evidence, who is able to tell whether a bed is a "young" or "old" one? Only on the assumption that biological evolution is true can one claim any ground for determining the age of a given rock bed.

This same reviewer also maintains that "the main proof that geologists are on the right track lies in the fact that the so-called theories work out in dollars and cents for the commercial companies." Along the same line another reviewer states: "If his views are correct and those of other geologists wrong, all the geologic mappings and structural studies carried on by national and state surveys, all the careful examinations of underground conditions by geologists in the employ of large corporations, and all the geologic investigations in universities and research laboratories, have been based on false premises, have been conducted along wrong lines, and have led to incorrect conclusions."

These criticisms would be true if Professor Price would deny stratification of rocks, which, clearly, he does not do. So far as the practical application of geological theories is concerned, his theories would work just as well as those of an orthodox geologist.

The most striking point that one observes in these reviews is a manifest evasion of Professor Price's arguments. Two reviewers did not touch a single one of his arguments and a third made a feeble attempt at refutation. This reviewer, Professor William North Rice, Ph. D., LL.D., in the *Methodist Review*, July-August, 1924, p. 556 ff., begins his criticism by a bold

question-begging statement: "In the *oldest* and *lowest* group of strata, etc." The point of age is the very question in dispute. Let Professor Rice first tell us how he knows that one rock is older than another. Geologists have not advanced one step since Dana's day toward arriving at a method of determining the age of a rock bed excepting those cases where several strata are in clear evidence. Professor Rice is so ensconced in his theory that he has failed to keep in mind the fact that the fossil clue as to the age of rocks is only a theory which, to be conclusive, must be proved on independent grounds. "The day is past", says Floyd Hamilton, "when a professor of biology or geology, no matter how erudite he may be, can reply to evidence and argument against evolution with only ridicule, denials and assertions, and expect intelligent men and women to be satisfied."

Rice lays down the dogma that "each successive group of strata is marked by the presence of its characteristic assemblage of fossils; and that order is nowhere inverted. Strata of any group may be found resting upon strata of any earlier group, but never resting upon strata of any later group. To this law there are no real exceptions." A little farther on, after stating Price's fundamental propositions concerning the chronological order of rock strata, he says: "In the case of thrusts and overturned folds, the author absurdly claims that 'the strata were actually laid down in the order in which we find them.'" Wherein is the absurdity? No proof is offered for his statements. He has not attempted to refute Professor Price's evidence.

The same writer, criticizing Price's view of the Flood, says: "There is, of course, not the slightest rea-

son for believing that the Noachian deluge covered the whole earth." This is perfectly in accord with the popular teaching concerning the Flood—a teaching that rejects the trustworthiness of the Mosaic account. Professor Rice ought to be able to detect the absolutely monotheistic character of the Mosaic account which fact alone should be sufficient to establish its superior value to the Babylonian or any other tradition of the Deluge. If it is granted that the Mosaic narrative is historically trustworthy and the language is accepted at its face value, it is difficult, indeed, to escape the conclusion that the Flood did cover the entire earth.

Let us examine a few classes of facts which bear on this strategic point. I quote frequently and copiously from the writings of Professor George McCready Price.⁶⁶

1. "Each stratified formation is only of limited horizontal extent, and that, instead of encircling the globe like universal onion coats, each foundation occurs only as mere scattered patches here and there." Any geological map will show these patches. This fact stirs up some fundamental questions at the very outstart. "Since we do not have fossiliferous onion coats to work with, but merely isolated patches of strata, how are we to find the real bottom of the fossiliferous series?" "How can we be sure that the Cambrian

⁶⁶ *The New Geology*, pp. 610 ff.

Art. *Modern Botany and the Theory of Organic Evolution*, The Princeton Theological Review, p. 51. Jan. 1925.

Art. *The Fossils as Age Markers in Geology*, The Princeton Theological Review, p. 585, Oct., 1922.

Art. *The New Catastrophism in Geology*, Bibliotheca Sacra, p. 209, Apr., 1923. .

faunas, for example, were once universal over the globe, or at least that no other distinct faunas (and floras), such as those of the Devonian, or the Cretaceous, or the Tertiary systems, could have been living contemporaneously in distant localities?"

It must be admitted that, as far as human knowledge goes, these questions are absolutely unanswerable. If we had geological onion coats to deal with, our problem would be distinctly different. What we do have, moreover, are merely isolated patches of strata such as would appear were the present world to suffer a sudden catastrophe and all life forms would become fossilized. The ocean beds would show the types of life found in the Algonkian, Cambrian, Silurian and Devonian rocks. Our dense forest regions would show Carboniferous, Permian, Triassic, Jurassic, Cretaceous, Eocene, Miocene, and Pliocene periods. Our civilized countries including cities would furnish fossils similar to those of the glacial, Champlain and Recent periods. What would a student of such a geological condition do? He would find the same patches of graded organisms. He could pile them up from the simplest to the complex and say: "Here is the scientific explanation." It would be equally possible and more scientific to explain it by a universal catastrophe. More scientific because it would account for some striking inconsistencies: for instance, a city which had been built partly on the ocean. This would make a case of the "Recent" lying directly on the "Cambrian" without any of the intervening periods between.

2. "In most localities, we have not more than two or three of the fossiliferous systems represented (and always only partially represented) above the

Archaean. . . . Any kind of fossiliferous bed whatever may occur next to the Archaean. . . . Are we not face to face with the possibility that samples of all these various types of life may have *lived contemporaneously in scattered localities all over the world?* . . . The whole geological series is just as purely constructive, just as wholly artificial, as would be a corresponding series of the living plants and animals of our modern world, which might be made up by carefully gathering and arranging many thousands of local faunas and floras from scattered localities all over the earth."

Is it not strange that nowhere does one find more than three fossiliferous systems represented in one place? Certainly in some part of the globe, in some canyon, or in some mountain gap, the entire series ought to be found. The total absence of the whole series in any single place makes the series hypothetical.

3. "Any kind of fossiliferous rock . . . may rest (nonconformably) upon the Archaean *directly*, without any so-called 'younger' strata in between; and these strata thus resting on the Archaean may themselves be crystalline or wholly metamorphic in texture.

"For example, through Tennessee, Eastern Mississippi, and into Alabama, the Cretaceous rest on the Paleozoic, 'and in Georgia they rest on the more ancient crystallines' (Schuchert). . . . Over the Rocky Mountain region, the Triassic beds lie directly upon the Archaean; and the same condition extends down through much of Mexico and Central America."

It is needless to illustrate this point further. What is the meaning of these phenomena? Price argues that "it follows like a mathematical demonstra-

tion, that when Cambrian, Ordovician, or Silurian strata are found resting on the old crystalline or Archaean rocks, they cannot be proved to be intrinsically and necessarily older than those Tertiary, Cretaceous, Jurassic, or Triassic strata found in an exactly similar situation elsewhere. And hence no one of these systems can be proved to be really older than any other." Can his conclusion be gainsaid? Only on the basis of evolution can it be held otherwise, and since evolution is the point in question, Price's conclusion stands. Otherwise one argues in a circle.

4. "Any kind of fossiliferous strata may, over wide areas, constitute the *surface rocks*, and may consist of loose, *unconsolidated materials*, in position and texture thus resembling the 'late' tertiaries or the Pleistocene."

The following illustrations prove the statement: The soft muds and clays and unconsolidated sands composing the Cambrian strata around the Baltic and in Wisconsin; the wide sweep of the Ordovician over much of Russia, consisting of similarly soft, unconsolidated materials; the soft Cretaceous beds of the southeastern Atlantic seaboard and of the gulf border. These phenomena suggest that these surface rocks have always been on the surface, whereas the accepted theory requires that the more recent strata than a given surface stratum have been worn away by erosion and have left no more traces of its existence. To illustrate: In the Cambrian strata around the Baltic and in Wisconsin, it is commonly believed that all of the strata above the Cambrian from the Ordovician to the Pleistocene have been worn away. Is it conceivable that in

such extended areas there is absolutely no trace of the more recent periods?

5. "Strata of any of the fossiliferous systems may be found *reposing in apparently perfect conformity* upon the strata of any 'older' fossiliferous system." These phenomena are often called *disconformity* or deceptive conformity. Note the following examples:

a) Murchison reported many years ago a case "from Northern Russia, at Ust Waga, on the Dwina, where Pleistocene or 'late' Tertiary beds occur in 'absolutely conformable superposition on the horizontal Permian sediments.'" (Suess, "Face of the Earth," Vol. 2, p. 543).

b) "There is a large area near Laka Athabaska, Canada, where Devonian limestone is conformably covered by Cretaceous beds." It extends for fully 150 miles. "Over this wide area, . . . 'the vast interval of time which separated the two formations is, so far as observed, unrepresented either by deposition or erosion.'" (Enclosed quotation from an officer of the Canadian Geological Survey, "Annual Report," New Series, Vol. 5, Part D, p. 52.) According to Price, this same succession of strata, Cretaceous upon Devonian, extends nearly to Lake Manitoba, some 500 miles away.

These are remarkable phenomena. Sir Archibald Geikie says that they are "not merely local, but *persistent over wide areas*. . . . They occur abundantly among European Paleozoic and Secondary rocks," and are "traceable over wide regions."⁶⁷ According to

⁶⁷ Quoted by Price, *The New Geology*, p. 624, 625, from Geikie's "Textbook," p. 842.

Price's testimony one of the most experienced geologists in America has seen and examined probably a thousand instances of this character, some of them covering areas as large as several states.

What is the most reasonable explanation of all these so-called deceptive conformities? W. B. Scott explains them thus: "Such a case arises when the surface of the ground is made by cutting down strata to the upper surface of a hard bed, which is then depressed beneath the water, as a flat pavement, upon which new material of a similar kind is laid down with hardly a perceptible break. . . . The existence of an unconformity, when none is apparent, may sometimes be detected by observing certain structural features which affect the lower and older beds, but not the upper. For example, the lower strata may be faulted or intersected by a dyke of igneous rocks, the fault or dyke ending abruptly at a certain level and not continuing into the upper series."⁶⁸ This answer does not, according to the author's opinion, account for all of the facts. In the first place, if the lower stratum is faulted or intersected by a dyke of igneous rocks, the unconformity is no longer deceptive. We are dealing with cases, thousands in number, in which there is no line apparent between the "younger" and "older" beds, the "older" showing no signs of erosion or of any disturbance.

In the second place, is it conceivable that in all of these cases the necessary successive steps of erosion, depression beneath the water, and the laying of new beds upon this flat pavement, could have taken place

⁶⁸ *An Introduction to Geology*, pp. 380, 381.

in just this order? In the third place, where is the evidence for these movements? If such were the case, would there not be some marine fossils between the two as remnants of the time when the "older" was the bed of the sea? Is it not more in accordance with the facts to hold that since absolutely no mark divides the "older" from the "younger," a single formation is being dealt with rather than two? Concerning one of these "deceptive conformities" located near Banff, Alberta, A. R. C. Selwyn, the illustrious director of the Geological survey of Canada, says: "Were it not for fossil evidence one would naturally suppose that a single formation was being dealt with."⁶⁹ It is obvious from this that the only reason that these thousands of "deceptive conformities" are interpreted as being two different formations is the presence of different fossils. The dictum of common sense is that we have *prima facie* evidence for only a single formation in all these cases of so-called "deceptive conformity". Any other explanation is mere speculation and is based upon an unproved theory that the fossils determine the age of a given formation. If my reasoning is in accordance with true scientific method, as I have every reason to believe that it is, a crushing indictment can already be made against the accepted theory for determining the age of the rocks. It is clearly and pointedly this: *The fossils are not age-markers in geology.*

I advance to still more convincing evidence because we are without question diametrically opposed to the generally accepted views of geologists, with no

⁶⁹ Quoted by Price in *The New Geology*, p. 622 from "Animal Report," New Series, Vol. 2, Part A, p. 8.

“orthodox” geologist to fall back upon for support. The argument is based wholly upon plain and simple facts observable by the “plain” man of the street, and on the cogency of which any rational person is qualified to pass judgment. It is the test preëminent whether one is guided by facts or by preconceived notions based upon speculative philosophy. A more cogent instance is hardly possible.

6. “In many places over stretches of country occupying thousands of square miles, the so-called ‘oldest rocks,’ are found resting in perfect conformity *on top of the ‘younger rocks.’*”⁷⁰ These phenomena are usually known as “thrust faults” or simply “thrusts”. Only a few out of a multitude of examples will be given.

a) “In a tract of over ten thousand square miles in Alberta, Canada, and Montana, we find Paleozoic mountains resting horizontally on Cretaceous beds, with nothing to mark the line of joining of the two strata except the fact that the strata on top contain fossils of the Cambrian period, while the strata underneath contain fossils of the Cretaceous period! R. G. McConnell, the geologist who explored the region for the Canadian government, is quoted by Price in his *Fundamentals of Geology* as saying: ‘The apparent conformity is perfect, even in the clearest sections, and the difficulty of drawing an exact line between the two series is further increased by the close lithological resemblance’ between them. That is to say, the mineral qualities of the rocks are the same all the way from

⁷⁰ Floyd E. Hamilton Art. *The Evolutionary Hypothesis in the Light of Modern Science*, Princeton Theological Review, July, 1924, p. 433.

top to bottom, and there is no line between the two layers of strata!"⁷¹

b) There is another in the southern Appalachian chain: "It involves parts of Georgia, Alabama, and Eastern Tennessee. Here Cambrian or Lower Silurian lie in apparent conformity upon Carboniferous; and the line of contact has been made out as extending 375 miles in length. The so-called 'Bannock Overthrust' is some 270 miles long, covering parts of Utah and Idaho to the northeast of Great Salt Lake."

A few explanations of these phenomena are worthy of notice. Scott says: "Surface-thrusts, as their name implies, are formed at the earth's surface, where a rigid, gently inclined stratum that crops out of the ground is subjected to lateral compression and thrust forward over the underlying beds."⁷² Price says: "In Scandinavia, a district some 1,120 miles long by 80 miles wide is alleged to have been pushed horizontally eastward 'at least 86 miles'. (Schuchert)." "The geological theories to explain the findings in the Alps," says the same author, "have gone through many vicissitudes, and have been repeatedly revised. At the present time, the theory generally received is that the rocks now composing the Lepontine Alps were lifted up several thousands of feet and *pushed bodily northward some 60 miles into the Helvetic region*, where erosion has since carved them up into the mountains as we now find them."⁷³

⁷¹ *Ibid.*, p. 433.

⁷² *An Introduction to Geology*, p. 357.

⁷³ *The New Geology*, p. 633.

It seems that according to the methods of true science the following conclusions are forced upon us:

1. If such gigantic movements of the earth's crust have taken place there would be at least some evidence remaining of the movement. It is inconceivable that a section, say 1,120 by 80 miles, could have been pushed horizontally for 86 miles and make such a close fit with the underlying stratum that no line of division between them can be detected; no crumbled rocks caused by the friction, no over-lapping edges, no vast empty channels of former streams covered by the upper stratum—all working as though the facing surfaces of each were perfectly smooth and perfectly lubricated so as to cause perfectly free movement.

2. When one inquires as to the almost infinite power required to do all this pushing, *evidence* is entirely lacking. Theories, many, are propounded but none with a shred of proof.

3. If one ignores the fossils, there will be no dream of such movements having taken place. It is the unproved theory of succession of organisms throughout the untold ages of the earth's history that, alone, accounts for men believing that such stupendous movements of the earth's crust have taken place. Simply because some fossils, say of aquatic life, are higher up in a rock stratum than others, say of some more "complex" animals, such unwarranted and unnatural explanations are given.

4. If one takes these facts as they are observed in nature, interprets them at their face value, he will believe that the "older" rocks were laid down after the "younger" rocks. Or rather, to relieve the statement of all evolutionary terminology, when a given stratum

containing flora or fauna, say of sea life, lies above flora or fauna, say angiosperms or vertebrates, it is to be understood that the sea-life fossils were deposited there after the fossils of angiosperms or vertebrates.

This brings our examination of the geological evidence to a close. A few summarizing points can be made:

1. It has been found that the evidence for the most ancient as well as the most recent ages is exceedingly unsatisfactory.

2. The whole series is far from complete, yawning gaps appear, inconsistent succession of fossils is found on every hand; in fact, no progression is observable.

3. The age-markers of geology, the fossils, are found to be not only hypothetical, but erroneous and impossible.

4. If the "fossil evidence" falls, the central pillar of evolution is gone. Evolution is found to be entirely without evidence.

This chapter should not be closed without pronouncing a verdict upon the value of the alleged evidences we have traced. No less than ten lines of evidence have passed before our view. None of importance have been consciously ignored. Evolutionists have been permitted to state their case. Fairness of presentation has been our aim. There is no point of value that has been purposely neglected. What is the verdict?

1. Many of the alleged evidences move in a circle. In logic it is called "begging the question." Because the human embryo passes through stages similar to the various forms of life from the Protozoa to Man,

it is *assumed* that the history of the race has been repeated. Man's embryonic development is appealed to as proof. But is not evolution the very point in question?

2. The evidence for variation and change is found to be confined to certain well defined limitations of each species.

3. Bateson's dictum, "The geological record is conclusive," is found to be false. The geological "ages" are entirely without foundation in scientific fact.

4. The alleged evidences for evolution are invalid.

Chapter V

MAN: WHENCE? WHITHER?

What is the difference between intentional killing of an ape and of a man? The prompt verdict of the law would declare the penalty of forfeiture of life for life in the case of the latter, while in the case of the former no notice would be taken unless the ape had been some person's particular pet. The concurrent judgment of society would class one as a murderer for killing a fellowman, while the taking of the life of the ape would simply be considered the triumph of a jungle hunt. Religion, too, would have its voice and would declare in unmistakable tones the supreme worth of man. For robbing man of his life one becomes a murderer; the killing of an ape is considered a non-moral act. Government, society, religion—all three distinguish clearly between these two acts. They are not in the same category.

It is quite in order to inquire how evolution would evaluate the acts in question. If the ape and man have a common ancestry, wherein lies the validity of this fundamental distinction that law, society and religion have made? "The distinction is false," is the only consistent reply. According to the logic of evolution it is no more criminal to take the life of a human being than to take the life of an ape. One mammalian is no better than another. Both are mere animals.

One shudders to entertain such a thought, but no better, more decisive or more conclusive method could be used to establish the fact that between mankind and the brute realm there exists a line of demarcation, absolute and ineradicable. It is a distinction of *kind* and not only one of degree. For if the evolutionary theory be true, then the vast structure of thought erected by mankind as evidenced in law, society, ethics and religion, which declares an infinite distinction between man and brute, totters and falls as a mere human fancy. The idea of man's rights becomes only fictitious. Who for a moment would consider an ape as having rights and privileges? But question the right of man to life and liberty, and something stirs within the breast declaring these principles to be inalienable for him.

It becomes evident, to begin with, that in any scientific study of man's origin, it is imperative to establish at the outstart his fundamental nature. The origin of these elements that distinguish man from the brute becomes a paramount question. In fact, the origin of man and the origin of the brute constitute two separate inquiries. When we search for the origin of the brute, a study is made for the causes that will produce brute life. Animal nature, with its instincts, must be accounted for. But when man's beginning is being sought, we are concerned with the origin of those elements that make a man a man. That feeling of an inalienable right to life and liberty; that deep-seated sense of "ought" that enters our mind with reference to a certain group of thoughts and actions; that intellect which first showed the power for solving and still solves the "47th of Euclid;" that emotion that expresses itself in love, pity, anger and pride; that will

which is able to perform an act or not to perform it; that religious capacity which expresses itself in worship—all these must be fully accounted for.

The difficulty encountered here is the problem of whether the elements of man's nature are subjects of scientific inquiry or whether they form purely a philosophical question. If sufficient data from one's observation can be mustered which bear on the question, certainly a scientific answer can be given. It is the firm conviction of the author that when we deal with the facts of government, ethics and religion, we secure data concerning the fundamental nature of man just as capable of scientific treatment as are the common facts of biology or physics. The author is not in sympathy with that tendency in modern experimental psychology which is denying the fundamental element of man, the soul, because this entity cannot be found by the researches of this science.

Passing on to a consideration of man's fundamental nature, it may be asked, What makes a man a man? Preëminently it is the great concept, personality. A man is a person, an ape is a brute. I repeat, the difference is in kind, not in degree. A man is not a highly developed ape. This difference is comprehended in personality. Personality denotes an existence of an entirely different order. A person is self-conscious, a brute lacks this quality; a person is self-determining, a brute acts only on instinct; a person has a conscience, a brute is entirely devoid of this element; a person is religious, to predicate religion of a brute is worse than ridiculous. Self-consciousness, self-determination, conscience, capacity for religion—these four constituents establish a fixed gulf between man and the animals.

This conclusion is supported by true science. Although modern experimental psychology is endeavoring to locate the living principle in man, all such efforts are futile, not because the soul is non-existent, but because its location is beyond scientific comprehension. We cannot deny to man a real personality (such as I have defined) simply because of our inability to locate the self. Electricity and gravitation are not denied for the reason that their definition is impossible. These four constituents of personality are observable in all men. No man can be found who lacks any of them. Together they constitute an indefinable something, intensely real, the distinctive characteristics marking off man from the brute kind into an entirely unique order of existence.

It is clearly seen that what I am predicating of man is fundamentally different from that which the evolutionist declares concerning him. An animal possessing self-determination, self-consciousness, but lacking religion and conscience, may still be a man according to his view. However, such an animal does not exist nor is there evidence that one ever did exist; it is a hypothetical animal and deserves no consideration in a scientific discussion. I desire to stress with all the force that language can carry that this definition of man's fundamental nature is crucial to our discussion and full weight must be given to its meaning. By their very nature, the facts mentioned make a scientific study of man's nature possible, and we shall see that in no way can evolutionary theories bridge the chasm between these two orders of existence. But let me give facts. My inquiry in this chapter presses the following

question: Is the evolutionary view of man's origin and history scientific?

I. GEOLOGY AND THE "MISSING LINKS"

The theory that fossils are age-markers in geology has already been undermined. Even if the theory for geological ages were true, the character of the so-called "recent" ages in geological history is so extremely unsatisfactory as to afford no basis whatever for scientific conclusions. Were it not for the fact that some scientists still hang on with a death-like grip to a few skulls, jaws, and teeth, which are clearly either those of men or of simian brutes, they would be dismissed as utterly unworthy of consideration in a scientific treatise. They make good subject matter for fiction, but in science we wish to have in hand not the reconstructed animal, but sufficient remains upon which certain conclusions can be based.

Here is *Pithecanthropus Erectus*. Consider the scanty remains: A skull cap, two upper molars and a femur! Fragments found in Java in a river bed, and they were fifty feet apart, and not all found in the same year! The rainy season intervened! Plenty of evidence to determine all we need to know about *Pithecanthropus*! But pray tell us why there are so many different reconstructions? Why so much debate as to whether he is an ape or a man? It is evident that if these remains permit of more than *one* reconstruction, they are worthless as evidence. "A few years after the discovery, twenty-four of the most eminent scientists of Europe met at Leyden and passed their verdict on these bones. Ten said they were nothing but the bones

of a monkey, seven that they were those of a man, and seven pronounced them really the missing link between man and the ape. Thus only seven, not one-third of the twenty-four, ascribed any importance whatever to the relic."¹

Next is Heidelberg Man. On the basis of what fragments was he reconstructed? A lower jaw! Can any scientific data for a missing link be based on a jaw bone? Any reconstruction amounts to nothing more than a piece of capricious speculation.

Here is Piltdown Man. What fragments were found? An imperfect cranium, part of the mandible and a canine tooth. But the mandible is manifestly older than the skull and belongs to a fossil ape, while the cranium is more recent and conspicuously human. Of course, to build these two into one skull gives a very ape-like man or a man-like ape—just what is desired. But this is not the procedure of true science. "Any one can combine a simian mandible with a human cranium, and, if the discovery of a connecting link entails no more than this, there is no reason why evidence of human evolution should not be turned out wholesale."²

And now, Neanderthal. His remains consist of the portion of a cranium, the upper arm and thigh bones, a shoulder blade and collar bone, and rib fragments. There are various opinions as to Neanderthal. Professor Clermont, of Bonn, and L. Meyer pronounced the remains to be those of a Cossack shot by

¹ J. D. Charles, *Fallacies of Evolution*, p. 32.

² O'Toole, *The Case Against Evolution*, p. 323.

snipers in 1814, and cast by his slayers into the Feldhofer Grotto. C. Carter Blake and Karl Vogt declared the skull to be that of an idiot. Some say that it is the skull of an ancient Celt or German; others, of an ancient Hollander, and still others, of a primitive Frieslander. O'Toole's conclusion is sensible. He says that the skull is "that of a low, perhaps, degenerate, type of humanity."³

It is worthless in our discussion to pass before our notice any more of these "missing links". Professor G. B. O'Toole has summarized the matter in a very fair and scientific manner. He concludes that, "so far as science knows, only one human species has ever existed on the earth, and that is *Homo sapiens*. All the alleged connecting links between men and apes are found, on careful examination, to be illusory. When not wholly ambiguous in view of their inadequate preservation and fragmentary character, they are (as regards both mind and body) distinctly human, like the Neanderthal man, or they are purely simian, like the Pithecanthropus, or they are heterogeneous combinations of human and simian bones, like *Eoanthropus Dawsoni*. 'With absolute certainty,' says Hugues Obermaier, 'we can only say that man of the Quaternary period differed in no essential respect from man of the present day. In no way did he go beyond the limits of variation of the normal human body.' (The Oldest Remains of the Human Body, etc., Vienna, 1905)."⁴

³ *Ibid.*, p. 325.

⁴ *Ibid.*, p. 342.

II. THE PROBLEM OF PHYSICAL EVOLUTION

It is customary for evolutionists to minimize the physical difference between man and the brute. That a discussion may be conclusive, full attention must be paid to the unique structure of man, recognizing at its face value its difference from the ape. O'Toole quotes Ranke's summary of the chief anatomical differences between man and the anthropoid apes as follows: "The gorilla's head leaning forward, hangs down from the spinal column, and his chinless snout, equipped with powerful teeth, touches the breastbone. Man's head is round, and resting on a free neck, balances unrestrained upon the spinal column. The gorilla's body, without a waist, swells out barrel-shaped, and when straightened up finds no sufficient support on the pelvis; the backbone, tailless as in man, but almost straight, loses itself without nape or neck formation properly so-called in the rear part of the head and without protuberance of the gluteal region in the flat thighs. Man's body is slightly molded, like an hour-glass, the chest and abdomen meeting to form a waist where they are narrowest; the abdominal viscera are perfectly supported in the pelvis as in a plate; and elegance is decidedly gained by the double S-line, which, curving alternately convex and concave, passes from the crown through the neck and nape, down the back to the base of the spine and the gluteal region. The normal position of the gorilla shows us a plump, bear-like trunk, carried by short, crooked legs and by arms which serve as crutches and touch the ground with the knuckles of the turned-in fingers. The posture of the body is perfectly straight in man, it rests on the legs

as on columns when he stands upright, and his hands hang down on both sides always ready for use. The gorilla is thickly covered with hair, while man's body on the whole is naked."⁵

According to O'Toole's testimony, Ranke says that man is a brain animal, and this sums up the chief difference which marks off the human body from all bestial organisms. To quote O'Toole again: "In the ape the brain weighs only 100th part of the weight of its body, whereas in man the brain has a weight equivalent to the 37th part of the weight of the human body. The cranial capacity of the largest apes ranges from 500 to 600 c. cm., while the average cranial capacity in man is 1500 c. cm. Moreover, the human brain is far more extensively convoluted within the brain-case than that of an ape, so much so that the surface or cortical area of the human brain is four times as great as that of the ape's brain."⁶

Professor O'Toole states that "another difficulty in the way of the Darwinian theory of direct descent is the fact that the best counterparts of human anatomy are not found united in any one species of ape or monkey, but are scattered throughout a large number of species. . . . Aeby recognized what modern anatomists have forgotten or wilfully ignored: that any system of descent is inadequate which does not recognize that the type of man is not in any one organ, but in all the physical and psychological features. He declared that while we are far from having this universal knowledge, we have learned enough about the various

⁵ *Ibid.*, p. 272, quoting from *Der Mensch*, Vol. II, p. 213.

⁶ *The Case Against Evolution*, p. 274.

*parts of the body to make it impossible for us to sketch any plan of descent. 'It almost seems as if every part had its own line of descent, different from that of others.' ⁷

Sufficient has been said to show that structurally man differs much more from the ape than evolutionists would have us believe. The resemblances are superficial, while the points of distinction are fundamental. Recalling at this point the testimony of modern science, discussed in the preceding chapter, that there is no evidence whatever for continuous, progressive change as being the fundamental law of life, and anticipating in a later discussion that no dynamic can be found in life to cause it to evolve upward, it is a proper deduction to make that, in so far as man's body is concerned, he bears no genetic relationship with the brute realm.

III. THE PROBLEM OF MENTAL EVOLUTION

Has man's mind evolved from the brute's? Does brute mentality show kinship with human mentality? Is the mental life of man of the same order as that of the brute? It is at once apparent that the proper answer to these questions is paramount in an investigation of the theory of evolution. If it can be shown that the difference between animal and human mentality is one only of degree and not of kind, then the way is open for believing that a genetic relationship subsists between them. However, if it can be shown that the human mind is qualitatively as different from the brute mind as human personality transcends brute existence,

⁷ *Ibid.*, p. 274 ff.

then it is vain to seek a genetic relationship between them.

The workings of the human mind have always baffled complete investigation. On this account every possible means is being used to unlock its mysteries. One of the recent developments in the investigation of this problem has been the study of brute mental life with the view of gaining a better comprehension of the workings of the human mind. So extensive have the researches in this field been that a new discipline has been severed from the general study of psychology called Comparative Psychology, which has for its purpose a comparative study of the mental activity of animal and human life. We look with keen interest upon the investigations of this new science for light upon our immediate question.

Its methods of approach and investigation become supremely important. Investigations of any science recognize that the methodology used by a student determines the success or failure of his efforts. Turning then to the methodology of the comparative psychologists, we perceive at once that the whole science is vitiated by certain prepossessions or presuppositions which, to say the least, disappoint us, and, in fact, render the science almost incapable of shedding light upon the questions proposed at the beginning of this section.

To begin with, we observe that the science of comparative psychology is governed by the belief that brute and human existence are genetically related. The very point in question is taken for granted. Believing that man has evolved from the brute, the mind of the latter becomes the seed plot of the former. I think

that the comparative psychologist should be first concerned with determining whether brute and human existence are of the same order or of different orders. It is clear that if we assume them to be of the same order, before it is proved, we are wrecking our scientific discipline.

To Professor F. D. Jenkins' discussion of the subject I am greatly indebted for the material of this section. Being aware of the prepossessions of the comparative psychologists, Professor Jenkins gives the steps in fixing an appropriate and ideal methodology. He holds that the first step "is the negative one which the founder of modern scientific method, Francis Bacon, laid down, viz., the preliminary ridding the mind of all historical and individual presuppositions or 'idols'. The scientist is primarily a mere describer, and, as Harnack says of the historian, 'hat keinen Standpunkt.' It is at this initial point that the mental evolutionists, with whom we have to deal, appear to commit their consequence-fraught error, and would disqualify themselves for authoritative judgments concerning human and animal mentality."⁸

As an illustration of philosophical and metaphysical prepossessions, Jenkins cites three groups: first, the monistic or "identity" theory, which tends to overrate the animal consciousness; second, the materialistic monist theory, which tends to underrate the higher functions of animal consciousness; and third, the theory of the psycho-physical parallelists, who maintain the separate existence of soul and body but deny their causal connection *in toto*.

⁸ *Princeton Theological Reviews* of January and April, 1924.

The first tends to confound the mind with the cerebral process, the soul being virtually lost "in its material substrate." It is plain that if one is prepossessed by this idea, one is bound to ignore the fundamental reality of human beings, namely, the self. Human personality becomes an illusion, and, as Jenkins points out, "there can be neither a psychology nor certainty of knowledge of any kind," for how can one be sure that one knows something if the reality of the knower is gone? How prejudicial to an objective Comparative Psychology this psycho-physical monism is, appears in the writings of the eminent Swiss animal psychologist, August Forel, and the still more prominent English Comparative Psychologist, C. Lloyd Morgan. For instance, Forel, whose specialty is insects, holds that "it is possible to demonstrate the existence of memory, association of sensory images, perceptions, attention, habits, simple powers of inference from analogy, the utilization of individual experience and hence distinct plastic individual deliberations or adaptations."⁹

If Forel is correct, we might as well obliterate the term personality as a distinguishing characteristic of mankind and welcome the insects into our human fellowship. A close examination of the facts shows that Forel's conclusion is a flagrant example of begging the question. Without a doubt there are evidences that make it *appear* that insects possess memory, association of sensory images, etc., but the crucial question

⁹ Quoted by Jenkins in *Princeton Theological Review*, January, 1924, p. 61, from *Ueber die psychischen Eigenschaften der Ameisen und einiger anderen Insekten* in the documents of the Fifth International Zoological Congress of 1901.

concerns the reality of these appearances. Does Forel mean to say that he has fathomed the insect mind so that he has actually demonstrated the possession of these personal attributes by insects? All he had to go by were *appearances* of these, from which he *inferred* by analogy with the workings of his own mind that the insect remembers, associates sensory images, etc., in identically the same way as persons do. His thought breaks down at the crucial point of the unbridgeable chasm between the mind of man and the mind of the insect. Forel cannot prove that he has spanned this gulf.

The materialistic monists reduce the self to mere mechanism. The noble discipline, psychology, becomes merely the science of behavior. Animals and man are mere automata, mechanisms of the same kind, though not on the same level. With this prepossession, it is but natural that the researches of Comparative Psychology will be side-tracked, and study is made only of behavior, while the point of supreme importance, the *nature* of animal and human mentality is quietly ignored. The methodology of Comparative Psychology must be rid also of the "idol" of the mechanical theory.

The third form of prepossession termed psychophysical parallelism, holds that the "mind and brain are two entirely distinct substances, and such disparate realities as to exclude all mutual causal connection and interdependence. The physiological or cerebral causal series runs, in a self-contained way, parallel with the psychical series, neither series influencing the other."¹⁰

¹⁰ F. D. Jenkins Art., *The Problem of Mental Evolution*. Prin. Theol. Rev. Jan. 1924, p. 61.

Professor Jenkins continues with this criticism: "An individual might thus, as a corollary truth, live, move, and have his being in mere cerebral coördinating activity in total indifference to his thoughts, volitions or feelings. His psyche might just as well be ensconced in some other person's mortal coil. While thinking pain and evil he might act, physiologically, pleasure and good. It is plain that Comparative Psychology is then impossible. . . . For the consciousness and intelligence of animals is manifested only through, and by means of, the instrument of this physiological organism."¹¹

Another fundamental preconceived idea common to all mental evolutionists, according to Jenkins, "is the assumption of the theory of not only biological, but cosmic and even monistic evolution as apodictically true. Morgan, who holds the latter, speaks of a monistic evolution which 'sweeps through nature,' and is synthetic, selective and tending to cosmos from chaos. *These traits are characteristic alike of inorganic, organic, and mental evolution.* 'Regarding man as the crowning product of this evolution, I, nevertheless, conceive him to be the self-conscious outcome of an activity selective and synthetic, which is neither energy nor consciousness: which has not been evolved, but through the action of which evolution has been rendered possible; which is neither subject nor object but which underlies and is common to both.' 'It is of course true that the laws of inorganic development are not the same as the laws of organic development: and

¹¹ *Ibid.*, p. 61.

equally true that the study of mind introduces us to a new aspect of the developmental process. Notwithstanding these obvious differences, the evolution that sweeps through nature is, I believe, *one and continuous*.'¹²

From these statements of Morgan, Jenkins concludes that "his final decree in favor of mental evolutionism was the logically inevitable outcome of his sweeping metaphysical conception, the actual facts *volens volens*."¹³ A little farther on Jenkins says: "The following plea of Darwin, whose thesis is 'to show that there is no fundamental difference between man and the higher mammals in their mental faculties' reveals this *vera causa* of his propagandism; to admit the distinction of kind between man and animals 'would make the theory of Natural Selection valueless' so that he himself 'would give absolutely nothing for the theory of Natural Selection,' and he adds, 'I think you will be driven to admit all or reject all.' He therefore concludes that this doctrine (of mental evolution) 'rests upon ground that can never be shaken.'¹⁴ On p. 69 Jenkins again quotes from Darwin: "No one could dream of Mental Evolution were it not for the evidence of organic evolution." "If we already believe that all specific forms of animal life have had a derivative origin, we cannot refuse to believe that all the mental faculties which these various forms present must likewise have had a derivative origin. And as

¹² *Ibid.*, pp. 66, 67.

¹³ *Ibid.*, p. 67.

¹⁴ *Ibid.*, pp. 67, 68.

a matter of fact we do not find any one so unreasonable as to maintain or even suggest that if the evidence of organic evolution is accepted, the evidence of Mental Evolution within the limits which I have named, can consistently be rejected. The one body of evidence, therefore, serves as a pedestal for the other, such that in the absence of the former the latter would have no *locus standi*." Jenkins quotes from L. Morgan: "We are logically bound to regard psychological evolution as strictly coördinate with biological evolution." "The force of these representations," says Jenkins, "must be admitted as difficult to contest on purely *a priori* grounds. The only alternative questions to be urged are: first, is biological evolution true? secondly, even if true, does the mental evolution that it supposedly involves necessarily obtain without a break at any point? . . . But granting merely for sake of argument the truth of biological evolution, does it follow that, secondly, the concomitant mental evolution has no historical break or discontinuity?"

Still other presuppositions upon the science of Comparative Psychology must be observed. This second group, though overlapping to some degree those just discussed, are sufficiently distinct to warrant separate treatment. This "idol," according to Professor Jenkins, is "the reading of human desires or intellect into nature," the act "of employing the categories and qualities of mind in interpreting animal activity." Jenkins points out that Aristotle speaks of the cuckoo as "*conscious of its own timidity*," refers to pigeons as being able to "*discriminate ten different varieties of hawks*," and holds that "many animals *imitate man-*

kind.”¹⁵ The validity of using these terms with reference to animals becomes the crux of animal psychology.

That this is a real problem antecedent to the study of Comparative Psychology and ultimately to the larger inquiry as to whether there is a genetic relationship between man and brute, I shall now endeavor to show. Interpreting the animal mind involves many very real and serious difficulties. Five of these difficulties are enumerated by Jenkins: 1. There exists a great qualitative gap between the animal and human minds. 2. There exist “quantitatively and qualitatively different sense-organs and neural systems in animals, and hence of different senses and powers, either superior or inferior to those of man.” Illustrations: Compound eyes of insects and crustacea, the sense of touch in cats, the sense of direction in bees, etc. 3. “Animals have no language or sign-system by which to convey their ideas and feelings, if they have any, to us.” 4. “Animals have been treated and envisaged as pets or companions,” so that “the brute stupidity, the fundamental bestial nature, the mechanical and thoughtless life, and the lack of ultimate enduring affection” are ignored in the desire to find intelligence in them. 5. There is a lack of a more extended knowledge of the animal in question.¹⁶ Each of these five difficulties could well be expanded, but their brief statement serves to show the greatness and the complexity of the problem before the comparative psychologist.

¹⁵ *Ibid.*, April, 1924, p. 277 ff.

¹⁶ *Ibid.*

This lengthy introduction to the discussion of the problem of mental evolution prepares the way for an understanding of this fundamental problem, and will greatly facilitate an arrival at a true solution; moreover it makes possible a very brief treatment of the subject. Of what I have thus far written, this is the sum: *animal intelligence is an entirely different order of intelligence from that of man.* This being true, a strong indictment is given against the opinion that there is a genetic relationship between the mind of man and that of animals. Science has no proof to offer for such relationship. As was made evident above in a quotation from Darwin, the theory of evolution did not have its origin in a comparative study of the minds of man and animals; this comparative study arose as a result of the evolutionary doctrine. It is therefore urged as a necessary appendage to the whole theory. It is on this account that the science of comparative psychology has had its origin, and, consequently, has been so fruitless in giving the proper solution to the question of the nature of the human mind. The supremacy of the human mind over that of the brute hardly needs to be explained. It is the seat of human personality. The mind of a person transcends the mind of the brute in just the same measure as personal existence excels brute existence. The capacity for thinking, feeling, willing, must have an adequate medium for operation. Therefore it is just as impossible to derive the human mind from the brute as it is to evolve personality from bestial existence. This leads us to the next still more important consideration, namely, the origin of human personality.

IV. THE ORIGIN OF HUMAN PERSONALITY

In the opening paragraphs of this chapter I drew attention to the supreme worth and superior dignity of man. Allusion was also made to four distinguishing characteristics of human personality. A scientific account of their origin must be found. How did personal existence evolve from brute existence? How did self-consciousness, self-determination, conscience, and capacity for religion develop? I must say that I have looked in vain for an answer to these questions from evolutionary scientists. In chapters on the origin of man much is said (guessed) as to the mental capacity and the life of Pithecanthropus, Heidelberg man, Neanderthal man, Piltdown man, Cro-Magnon man, and others. But in answer to the more important problem of the origin of personality there is almost absolute silence. I marvel at this vacuum in their discussion. Can it be that men of science are unable to perceive that the human and the brute constitute two totally diverse orders of existence—a fact which should cause one to look with suspicion upon the evidences presented for man's physical evolution even before examining their validity? The absence of a solution of this most vital problem is the basis of another serious indictment against the theory of evolution.

If man had a genetic relationship with the lower animals, there surely would be a capacity for communication between the two. Real communication can never be established with the brute realm, not even with our supposed nearest relatives, the apes. If an American is brought into association with a Hottentot of Africa, a medium of communication will be estab-

lished. In some mode the American will learn to speak with the Hottentot, and in some way the latter will learn to answer. On the other hand, between man and the most intelligent brute no communication whatever will be possible. Man can talk to his pet dog, but the dog cannot answer. You can never get from a dog an answer to the question: "How do you feel to-day?" This simple point has a profound significance. It most decisively indicates that there is no blood-relationship between man and the brute. They constitute two different orders of existence.

Is a dog *aware* that he is a dog? Did a dog ever *decide* that one piece of meat was better than another? Does a dog ever *feel conscience-stricken*? Does he ever *confess sin*? Is he ever found *praying* or *worshipping*? Do not exclaim, "Foolish questions!" I contend that this is a genuinely scientific approach to the problem of the genetic relationship of man and brute. For if all these questions must be answered in the negative, as all will agree they must be, it is simply to affirm that two different orders of existence are being dealt with, and consequently no genetic relationship exists between them.

But how did man's ethical and religious nature originate? Could it have sprung from the brute? This inquiry demands special study.

V. THE ORIGIN AND HISTORY OF ETHICS AND RELIGION

1. The Evolutionary View and Its Assumptions

Professor E. W. Hopkins in his work, "The History of Religions," upholds the typical evolutionary

view of this subject. Let us examine his fundamental position as stated in the Preface to his work. After allegorizing religion according to the Polynesian notion of it as being the sacred tree, he lays down the central propositions of his theory.

"In the course of this volume we shall study the roots and the higher growth of this tree, which through its age-long development, as any tree changes its earth-drawn sustenance into something more ethereal, has transmuted terror into reverent awe, hunger into hope, lust into love. We shall trace the slow progress of such roots of religion as bear to-day the names taboo, fetishism, totemism; see how taboo invested with spiritual power the moral command, insured the home, and made for civilization; how fetishism confirmed the thought that man depends on a spiritual something, gave forth in a power that helped, and made that power the judge of right and wrong; how totemism linked man in communion with the divine and in conjunction with seasonal nature worship, founded ritual in the recurrent form necessary to religious stability. We shall see, in short, that the higher not only is above the lower, but that it has ascended out of the lower. Savagery did not give place to civilization, but developed into it, was already civilization in the germ."

In this statement there are at least two assumptions, and a third is clearly implied. In the first place, it is implied that man at some remote time was devoid of ethics and religion, and that through the evolutionary advance of the race the capacity for these has developed and is now common to the race. The crucial point in this inquiry concerns the question whether the

capacity for ethics and religion is a necessary element to man, or whether it is an external appendage or recent accretion. The logic of evolutionary thinking leads to the latter. And, in fact, most evolutionists hold to it. Abundant evidence is available to prove that the ethical and religious nature of mankind is fundamental to man. Without these the being in question does not belong to the *genus homo*. Anticipating this point of my discussion I sent out questionnaires to a number of Christian missionaries in several of the great mission fields of the world for first-hand information on this vital matter. In answer to the question, "Are there any heathen totally devoid of a moral and religious nature?" the following were given.

Rev. William Moyser, for more than thirty years a missionary to India, answers, "Emphatically, No." Rev. Charles E. Hurlburt, at one time the General Director of the Africa Inland Mission, writes: "I do not know of any tribe that has not some sense of sin, with some penalties and discipline for sin that affects their fellows. And in all there is something of a fear of the spirits of their fathers." From the Belgian Congo comes the statement of Rev. Thomas Moody: "I have travelled from the mouth of the Congo to the Equator and literally tramped thousands of miles. . . . I have not found anywhere any people amongst the various tribes that did not exhibit and manifest a moral and religious nature." "I have never found or known, of any tribes devoid of moral or religious nature," says Dr. Hyman L. Weber, of Cameroun, West Africa. "In 1904 two of us passed through perhaps a dozen tribes that had never heard of God or Christ, and we asked them: 'Are stealing, adultery,

bearing false witness, killing, jealousy, etc., right or wrong?' And invariably and without exception their answer was: 'They are wrong.' We asked these questions not once, but hundreds of times and always received the same answer."

The testimony of Rev. H. E. Bowe, of the African Inland Mission, is: "All the natives we know have a moral nature, a sense of the oughtness of things—woefully distorted as it is. We know of no heathen devoid of a religious nature. Primitive man's animism is a definite form of worship." It is a matter of common knowledge that mankind universally has a moral and religious nature. What is the conclusion that can be drawn from these facts? Is it not that man's morality and religion are essential constituents of his being? Lacking these he would not be man.

In the second place, Professor Hopkins' statement assumes that historically, man's ethics and religion have passed through the stages of animism and polytheism to monotheism. Soper, in his "The Religions of Mankind," maintains: "All the more fully developed religions of the world have emerged out of these more primitive forms. They have all passed through the animistic stage, and cannot be understood without a knowledge of this very period of their development." The stock argument in proof of this assumption is based on a study of modern savage life, it being held that all advanced life has ascended from this savage state. Inasmuch as all evolutionistic students of sociology, anthropology, and the history of religion take this position, special attention needs to be given to this point.

2. The True Method of Approach

There are at least two ways of approach to this problem: (1) through a study of history, and (2) through a study of savage life. As we press backward through the centuries of history, do we find savagery among the primitive races? Did the great nations develop from savagery? Is primitive religion animistic? Let us examine a few facts.

(1) The Light from History

As to primitive civilization, Dr. James Orr holds that "many erroneous inferences may be drawn from stone implements and the like as to the intellectual and moral calibre of the people using them." He continues: "The greatest civilisations of antiquity do not show traces of an earlier period of barbarism. These civilisations certainly did not spring into existence ready-formed, but there is nothing to indicate any such slow rise from an antecedent state of savagery as the modern hypothesis supposes. This is peculiarly the case with the oldest civilisation—that of Egypt. 'In Egypt,' says Canon Rawlinson, 'it is notorious that there is no indication of an early period of savagery or barbarism. All authorities agree that, however far we go back, we find in Egypt no rude or uncivilised time out of which civilisation is developed.' *Origin of Nations*, p. 13. The same writer says of Babylon: 'In Babylon there is more indication of early rudeness. But, on the other hand, there are not wanting signs of an advanced state of certain arts, even in the earliest times, which denote a high degree of civilisation, and contrast most curiously with the indications of rude-

ness here spoken of.' (ibid. p. 14). This progress of discovery in ancient Babylonia has carried back civilisation, and a high development of the arts (as of writing), to a quite unthought-of antiquity (e. g. at Nipur.)"¹⁷ On these statements no comments are necessary.

History furnishes much valuable data proving that primitive religion was not animistic. I am again indebted to Dr. Orr for information on this point. He says: "The theory of a gradual ascent in religion from a primitive Fetishism through Polytheism to Monotheism, made familiar by Auguste Comte, and repeated with unquestioning faith by writers like Mr. Clodd and Mr. S. Laing, receives scant countenance from the best recent authorities. Certainly, no case has been found in which it is possible to trace historically such an evolution."¹⁸

Orr quotes from M. Renouf in his Hibbert Lectures p. 127: "If from pre-historic we pass to historic times, we at once meet on Egyptian ground with an entire system of notions wonderfully (indeed almost incredibly) similar to those entertained by our Indo-European ancestors. There is, however, no confirmation of Mr. Herbert Spencer's theory, that the rudimentary form of all religion is the propitiation of dead ancestors. If the Egyptians passed through such a rudimentary form of religion, they had already got beyond it in the age of the Pyramids, for their most ancient propitiation of ancestors is made through

¹⁷ *The Christian View of God and the World*, p. 441.

¹⁸ *Ibid.*, p. 409.

prayer to Anubis, Osiris, or some other gods.”¹⁹ Orr holds that man’s earliest religious ideas “were in some respects his highest—that the consciousness of the one God was with him in the dawn of his history, and has never been wholly extinguished since.

“Ebrard, after an exhaustive examination of ancient religions, thus sums up: ‘We have nowhere been able to discover the least trace of any forward and upward movement from Fetishism to Polytheism, and from that again to a gradually advancing knowledge of the one God; but, on the contrary, we have found among all peoples of the heathen world a most decided tendency to sink from an earlier and relatively purer knowledge of God.’—Christ. Apol. iii, p. 317 (Eng. trans.).”²⁰

That the ancient Egyptian religion was at heart monotheistic is contended for by M. de Rouge:

“The Egyptian religion comprehends a quantity of local worships. . . . Each of these regions has its principal god designated by a special name; but it is always the same doctrine which reappears under different names. One idea predominates, that of a single and primeval God; everywhere and always it is one substance, self-existent, and an unapproachable God.” (Quoted by Renouf, p. 90) “It is incontestably true,” Renouf testifies, “that the sublimer portions of the Egyptian religion are not the comparatively late result of a process of development or elimination from the grosser. The sublimer portions are demonstrably ancient; and the last stage of the Egyptian re-

¹⁹ *Ibid.*, p. 411.

²⁰ *Ibid.*, p. 442.

ligion, that known to the Greek and Latin writers, heathen or Christian, was by far the grossest and most corrupt." (Hibbert Lectures, p. 91).²¹

"The early Babylonian religion was polytheistic;" says Dr. Orr; "but here also the monotheistic consciousness breaks through in the exalted predicates applied to the great gods by their respective worshippers." Concerning the religion of the Vedas in India, he says, it is "purer than the later Hindu developments, and points back, through philology, to an earlier stage still, when the Polytheism of the Vedas was as yet nonexistent. 'Behind the Homeric poems,' says Dr. Fairbairn, 'and the Vedas, and the separation of the Iranic-Indian branches, lies the period when the Celt and Teuton, Anglo-Saxon and Indian, Greek and Roman, Scandinavian and Iranian, lived together, a simple, single people. . . . Excluding the coincidences natural to related peoples developing the same germs, we find two points of radical and general agreement—the proper name of one God, and the term expressive of the idea of God in general. . . . A name for God had thus been formed before the dispersion. . . . The result is a Theism which we may name individualistic.' *Studies in Phil. of Religion*, pp. 22-29; 'The younger the Polytheism, the fewer its gods,' p. 22."²²

Ebrard says: "Immediately after the separation of the Iranians and Indians, that is, during the first Vedic period, the consciousness was fully present among the Indians that the Adityas did not represent a

²¹ *Ibid.*, quoted by Orr, p. 442.

²² *Ibid.*, quoted by Orr, p. 442 ff.

multitude of separate deities in a polytheistic and mythological sense, but only the fulness of the creative powers of the one God, and that the holy God, and that in each of these Adityas it was always the one God who was worshipped. And the farther back we go into the past, the more distinct do we find the consciousness among the Indians. In the second, the Indra period, it dwindles away, and gives place to a polytheistic conception.”—Chris. Apol. ii. pp. 213, 214.²³ According to Orr, “he finds the common root of the Indian and Iranian religions in a ‘primitive Monotheism, or Elohimism as we might call it, since there is no real distinction between the Elohim and the Adityas.’ (p. 214).”

Concerning the Iranian religion, Dr. Orr says that “in the form in which we find it in the Zend-Avesta (Zoroastrian) it is dualistic; but the conception of Ahura-Mazda, as we find it in the earlier portions, is so exalted that it may almost be called monotheistic. It unquestionably springs from the common Aryan root indicated above.”²⁴

Coming to Greece, Orr, quoting Max Müller who follows Welcker, says: “When we ascend to the most distant heights of Greek history, the idea of God as the supreme Being stands before us as a simple fact.” Chips, ii. p. 157. “This strain of Monotheism in the religion of the Greeks,” continues Orr, “is never absolutely lost, but reappears in the beliefs of the philosophers, the Orphic mysteries, and the lofty conceptions of the great tragic poets.”²⁵

²³ *Ibid.*, quoted by Orr, p. 443.

²⁴ *Ibid.*, p. 443.

²⁵ *Ibid.*, p. 444.

Plutarch tells of the religion of the Romans that it was imageless and spiritual. Their religious law-giver, Numa, he says, "forbade the Romans to represent the deity in the form either of man or of beast. Nor was there among them formerly any image or statue of the Divine Being."—Lives, on Numa.

(2) The Light from Modern Savage Life

Turning now to a study of modern savage life, can anything be learned as to the character of their primitive condition? Have they been practically static throughout the millenniums in which man has been on this earth, have they advanced, or degenerated? In other words, are the terms *primitive* and *savage* practically synonymous? In the questionnaire mentioned above I included the question: "Are the heathen religions in a process of upward evolution from animism through polytheism to monotheism?"

Let us study these replies. Rev. H. E. Bowe writes: "If by evolution you mean 'a continuous process by means of resident forces,' we do not know of any people that have moved upward in this way from animism through polytheism to monotheism. Those who contend that this is possible minimize non-resident and external influences.

"The monotheistic tendencies of later Greece, of Mohammedanism, of Judaism and Christianity can best be understood in the light of factors that have been brought to bear upon those systems from the outside.

"We have observed no tendencies toward monotheism among tribes untouched by civilization. The fact that in all the history of religion, through all the

centuries, no tribe untouched by outside powers has been found with a monotheistic faith militates against this assumption.

"If, however, you mean by evolution merely development from the lower form (animism) to the higher (polytheism and monotheism) without considering the causal factor, we believe that this question could be answered in the affirmative. As man was better trained he began to make differentiations. This led him out of animism. Still not willing to give up the supernatural he conceived of polytheism. Influenced by some monotheistic system he may have conceived of one God without accepting the truths concerning him. Rom. 1:20 seems to infer that it is possible even for the heathen to conceive of the one God."

Rev. Robert H. Glover, Home Director, China Inland Mission, answers thus: "I personally share your conviction most strongly that the religion of heathen peoples of to-day is a degraded religion and not the primitive form of religion from which all higher religions have come by an evolutionary process. My strong conviction, based upon eighteen years of personal missionary service in China, as well as long and wide contact and communications with most of the other mission lands, is that these ethnic religions have had a downward and not an upward trend. One need only study the origin and history of any of them, e. g., Hinduism, Buddhism, Taoism, to be convinced that they have steadily deteriorated and attached to themselves a mass of grotesque superstitions and degraded practices. The wide gap between their theory and practice cannot fail to impress any intelligent observer. With all these cults, creed and conduct, morality and

religion, have become widely divorced. I make bold to say that, despite atoms of truth and rays of light which they may contain, any or all of them are devoid of uplifting and saving power. They have woefully made their devotees their victims.

"When I speak thus of their deterioration I would not of course be understood to imply that any of these religions to which I refer were pure in their beginning as being direct revelations from God. But I do most certainly believe that God started the human race with a direct revelation of Himself; that sin and its estrangement from God steadily dimmed this revelation, until by many it became almost if not altogether lost. Then I regard the present ethnic religions in their beginnings as efforts to overcome the prevailing decadence of the times by a revival of religion.

"To add just a further word regarding the trend of modern ethnic religions, upward or downward, are not the various reform sects, such as the Brahma Samaj and Arya Samaj in India, the reformed Buddhists in Japan, etc., real evidence that the existing religions were recognized as being decadent and corrupt?"

Rev. E. L. McCreery, also of the Moody Bible Institute, says: "From my contact with Animism as indicated among the religion of the pagan tribes of Africa, I would unhesitatingly say that it everywhere bears the marks of degradation rather than of development from a more primitive form. There are four fundamental reasons which lead me to this belief:

"1. The attitude of Animism toward Christianity is that of antagonism, which reveals that it sees in

Christianity a rival and not simply a higher brother toward which it may climb.

"2. Among many Animistic peoples there are to be found traditions which indicate a better time when men were in closer relation to God.

"3. Not only tradition, but by words almost obsolete and that are fast becoming more so, there seems to be conveyed a conception of a higher knowledge of God than that which prevails among them to-day.

"4. That which is set forth by Paul in Rom. 1: 21-25 clearly indicates that he recognized Animism as a degraded form of a fuller revelation rather than a primitive form which religions develop to a higher form. 'Because that, when they knew God, they glorified him not as God,' indicates the starting point for false religions. Then the 23d verse gives us the progress in deterioration, changing the glory of the incorruptible God to the likeness of corruptible man, second birds, third quadrupeds, fourth creeping things."

Rev. H. V. Andrews, of Wheaton, Illinois, formerly a missionary for thirty years in India, writes: "I know of no progress upward in religious conception except as a result of divine revelation; but there is abundant evidence of deterioration in India, a downward progress, religious and moral practices keeping pace with the conception of God and worship. The purest writings of the Hindus are the oldest—the Vedas. The religion of the Vedas is the nearest approach to monotheism to be found in any of the sacred books of the Hindus. They contain less of the objectional, the obscene, and more that stimulates to moral and

religious uplift. In them woman holds a higher position, a nearer approach to equality with man than is found in any of the later writings, and caste is less in evidence.

“But Brahmanism of the Vedas has degenerated to the Hinduism of to-day, the product of the later writings, a religion broad enough and liberal enough to absorb any doctrine that does not conflict with its caste system. As a result of the doctrines of the more modern books, the gods of the Hindus have increased until they are said to number 300,000,000. Objects of worship have increased correspondingly, and degeneration is clearly evident both in the nature of these objects and the religious observances connected with them. Not content with idols in the likeness of men, they have them in the likeness of beasts, birds and reptiles. Nor has the downward trend stopped here. We even find ‘objects of vice are objects of worship, and acts of vice are acts of worship.’ As an example of this, consider the chief symbol of Hinduism—the ling. Much that is contained in the later writings of Hinduism, such as the Puranas and the Upanishads, are condemned as too obscene, and their publication prohibited by government. Max Müller, when writing his ‘Sacred Books of the East,’ was obliged to leave out long sentences as unfit for print.

“The following statement was taken from a Hindu periodical, ‘Abomination, not worship, is the main ingredient of modern Hinduism.’ From a Hindu newspaper we quote the following, ‘The pure, undefiled Hinduism which Swami Vivekanand preached has no existence to-day, has had no existence for centuries.’ Swami Vivekanand represented Hinduism at

the World's Congress of Religions in Chicago some years ago.

"Bishop Azariah, himself a native of India, made this statement: 'Pantheism the creed, grossest idolatry the commonest expression of religious instinct, and caste the social system; these constitute the real triad of Hinduism to-day.'

"No religion has degraded Womankind as has Hinduism, and most of the degrading sentiment is found in the latest of their sacred books, particularly the Laws of Manu. From it we give a single quotation, from the many similar statements: 'What is the chief gate to hell? Woman.' Hinduism is divided into many sects, with many shades of conflicting doctrines, but, as some one has said, on two points all are agreed,—the sanctity of the cow and the depravity of woman.

"During the last two centuries many reform sects have sprung up, influenced to a greater or lesser degree by the teachings of Christianity. These reform sects have discarded some of the more objectional doctrines and practices of Hinduism; some have even denounced caste, but their influence has been limited largely to the literate classes, and even among them the reform has not been widespread."

Rev. H. L. Weber says: "In answer I would say that they decidedly show a devolution which is most apparent to one who has spent the short span of 23 years among them. Their moral and religious standards are shamefully lower than those of their fathers. They have deteriorated under the impact of so-called civilization. Thirty years ago, for instance, adultery was punishable by death; to-day the same crime is a

huge joke, with little or no punishment attached. The raw heathen are still animists, and are not developing toward monotheism. The religious rites such as sacrifices, atonement for crime, etc., not to mention such customs as wailing for the dead, covering the body with ashes or white clay, or mud, seem to me to follow very closely the old Jewish customs, and it might well be that these practices are but a far distant relic of the Old Hebrew customs which were once practiced in Egypt long ago."

The testimony of Charles E. Hurlburt is: "Work for thirty years in the tribes where our mission is located in Kenya Colony, Tanganyika Territory, West Nile District of Uganda, North-east Congo and now in South-east French Equatorial Africa, leads me to say that in no case is there an upward tendency, but in all an increasing degradation."

Rev. Thomas Moody's laconic answer is: "I have never seen anywhere in barbarous Africa any upward trend from Animism through Polytheism to Monotheism."

Rev. J. N. Kaufman, voicing the combined sentiment of the American Mennonite Missionaries in India, writes: "If, as is so generally taught to-day, there is gradual development from lower to higher forms of life, and that from the crudest forms of ethical beliefs have developed the present high forms of theistic religious doctrines, it would be reasonable to expect higher types of religious beliefs among all those non-Christian beliefs that have been in existence some thousands of years. An examination of the non-Christian religions of to-day shows the opposite to be the case. Take Hinduism as the most notable example.

Hinduism had its origin in Vedic times some four thousand years ago under the name of Brahmanism. Brahmanism as then practiced was more or less simple and spiritual, and, although a non-Christian faith, revealed here and there flashes of the true light. A developed Brahmanism would indeed be a high type of religious belief. On the contrary, Hinduism as practiced to-day is sadly degenerated, and its religious practices so degrading and revolting as to place it far down the scale as compared with its more or less noble origin. This statement is confirmed by my own observation and is admitted by all thoughtful students of Hinduism. The above statement applies also to Mohammedanism, Buddhism, and Zoroastrianism, though to a less extent than to Hinduism."

Such is the testimony of the best informed people concerning modern heathen peoples, namely, Christian missionaries. Surely those who have spent years among these peoples for the purpose of taking to them the Gospel can give the most scientific answer possible. Beside this array of testimony, the words of Hopkins and Soper must melt away under the burning heat of facts. But in order that my conclusion may not be gainsaid, let me voice the opinions of older students on the question.

I quote copiously from Dr. Orr's Note, "Alleged Primitive Savagery of Mankind."²⁶

"As respects existing savages, the hypothesis (of man's original savagery) rests on the unproved assumption that the state of existing savages represents (or most nearly represents) that of primitive man.

²⁶ *Ibid.*, p. 440.

Of late, says Max Müller, there has been a strong reaction in the study of uncivilized races. 'First of all, it has been shown that it was certainly a mistake to look upon the manners and customs, the legends and religious ideas, of uncivilized tribes as representing an image of what the primitive state of mankind must have been thousands of years ago, or what it actually was long before the beginning of the earliest civilisation, as known to us from historical documents. The more savage a tribe, the more accurately was it supposed to reflect the primitive state of mankind. This was no doubt a very natural mistake, before more careful researches had shown that the customs of savage races were often far more artificial and complicated than they appeared at first, and that there had been as much progression and retrogression in their historical development as in that of more civilised races. We know now that savage and primitive are very far indeed from meaning the same thing.' *Anthrop. Religion*, pp. 149, 150.

"Evidence is constantly accumulating that, behind the existing condition of savage races, there stood a state of higher culture and civilisation. E. g., Dr. Tylor says: 'Dr. Bastian has lately visited New Zealand and the Sandwich Islands, and gathered some interesting information as to native traditions. The documents strengthen the view which for years has been growing up among anthropologists as to the civilisation of the Polynesians. It is true that they were found in Captain Cook's time living in a barbaric state, and their scanty clothing and want of metals led superior observers to class them as savages; but their beliefs and customs show plainly traces of de-

scent from ancestors who in some way shared the higher culture of the Asiatic nations.'—*Nature*, 1881, p. 2. Tylor's own pages furnish ample evidence of similar retrogression of the African and other tribes.—*Primitive Culture*, pp. 42, 43. . . .

"A fact of the greatest importance here is that pointed out by the Duke of Argyll, viz., that the degraded races of the world are those farthest from the centres of distribution of population. 'It is a fact,' he says, 'that the lowest and rudest tribes in the population of the globe have been found, as we have seen, at the farthest extremities of its larger continents, or in the distant islands of its great oceans, or among the hills and forests which in every land have been the last refuge of the victims of violence and misfortune.'—*Unity of Nature*, p. 426.

"Whateley's statement stands yet unoverturned. 'Facts,' he says, 'are stubborn things; and that no authenticated instance can be produced of savages that ever *did* emerge unaided from that state is no *theory*, but a statement, hitherto never disproved, of a matter of *fact*.' Exeter Hall Lecture on the *Origin of Civilisation*."

These testimonies also disprove Hopkins' third assumption, viz., that this development came about through resident forces. True, indeed, some heathen tribes have been transformed by the Gospel and are now monotheistic, but, as these missionaries hold, the change was wrought through external forces.

To what have we come in our study? Briefly stated, to this conclusion: A study of the human race as found in history and the world to-day reveals the facts that morality and religion are fundamental to

man's constitution; that since they are fundamental, they could not have been developed by evolution; that savages represent a degraded state of life, a retrogression from a higher life both as to civilization and religion; that primitive religion was monotheistic, and such lower forms as animism, fetishism, and polytheism, are degenerate forms from the earlier pure religion; and that consequently man's ethical nature has not evolved out of customs, but has always been an integral part of man's nature.

The historical origin of the Christian Religion requires special treatment and is reserved for the next chapter.

VI. WHAT IS WRONG WITH MAN?

Still another fact must be reckoned with. Briefly it is this: There is something decidedly wrong with the whole human race. Throughout the entire historic period of the world's existence this indisputable fact has faced man. If man has evolved or is evolving, some improvement ought to be visible in the human family.

All historic time presents a terrible story of war and bloodshed. Each nation has its long annals of wars, intrigues, campaigns, captures, slaughters. The wars have become more gigantic, lengthy, hellish and brutal as we advance to modern times. No one cares to talk of the horrible scenes of the World War. And yet it must be admitted that it was fought by the most enlightened nations on the globe. There is something satanic that is common to the human race, or else wars would long ago have ceased. The world is far from being "safe for democracy." A warless world is

an idle dream so long as this something in man's nature is not eradicated and something substituted.

Is the moral status any better? Optimists point to the immorality of decadent Greece and Rome and maintain that modern civilization is not nearly so bad. But observe that the Epicurean stage of their history was preceded by the lofty ideals of Plato, Aristotle and Socrates of Greece and Seneca and Marcus Aurelius of Rome. Europe is rapidly leaving its reformation, its Puritanism, and its *restraining type* of Christianity. No one cares to boast of modern morality. The World War disclosed too many ugly facts.

What is the philosophy and religion of the twentieth century? Can it be that the world is forsaking a thoroughgoing theism with its real foundation in correct thinking, for base materialism, pantheism, agnosticism, and atheism? Do not the mysteries of the universe, of life, of the Bible, reveal clearly the existence of a righteous God who created, preserves, and governs His universe? Can a man of the twentieth century speak and act as though no God exists?

I may be accused of speaking disparagingly of this boasted twentieth century. I have no desire to ignore the good. My simple thesis is this: There is something fundamentally wrong with the human race. The Bible calls it depravity and sin, the result of the transgression of our first parents. The reason for its mention here is that it is a stubborn fact in the way of the evolutionary theory of man's origin. History and personal experience show, and the Bible confirms it, that this depravity and sin can be removed only by an *external* power working an inward change on the "hearts" of individuals of the race. There is no evi-

dence for an individual getting rid of depravity through "resident forces."

VII. ONE PERFECT MAN

Authentic history records the life of only one man who was able to say: "Which of you convicteth me of sin?" Can this man be accounted for by the theory of evolution? Why are there not more perfect men born? No answer has ever been given. Some have attempted to deny the truth of the record. But if this record falls down no historical fact can be given conclusive documentary support. The authentic Record explains His origin in a perfectly consistent manner. The process was not an evolution from brute existence but the incarnation of Deity.

Evolution looks to a future evolution of man into what may be termed the superman. For this expectation there is no evidence. The Bible speaks of the Incarnate One as giving eternal life to men. This giving of life is known as regeneration, the new birth. But it is wrought by an external power. Whither is man directed? There will never be any supermen. But we do see men who were dead in trespasses and sins quickened, transformed, and made holy. For these there is given the sure promise of eternal life. Evolution cannot bridge the gulf caused by man's sin. The God-man can.

Chapter VI

THE HISTORIC ORIGIN OF THE CHRISTIAN RELIGION

WAS IT THROUGH EVOLUTION OR DIVINE REVELATION?

In his epoch-making book, "*Christianity and Liberalism*," Dr. J. Gresham Machen proved conclusively that Christianity and Liberalism constitute two totally diverse religions. The Gospel of Modernism is not the Gospel of the Christian Scriptures. It will not be surprising to learn, then, that equally diverse views are held as to the origin of the religion of which both Liberalists and Christians claim to be adherents. The point of difference centers around the historical question as to whether or not there has been an objective revelation of God. Putting it more simply: Has God at any time spoken to man? Christians answer in the affirmative, Liberalists in the negative. Archbishop Trench represents the Christian view thus: God's revelation of Himself is a drawing back of the veil or curtain which concealed Him from man; not man finding out God, but God discovering Himself to man.

"Against the word 'revelation' so understood," says William Frederic Badè, a typical Liberalist, "we wish to enter an early protest. Thoughtful men every-

where are abandoning this old conception, which came in as a correlate to the transcendent idea of God, and to a world-view that has been outgrown. A God apart from the world was necessarily believed to reveal Himself from without, objectively. The older apologists also identified revelation with the entire contents of the Bible, sought external supports for revelation in miracle and prediction, and depreciated the function of reason as an organ of knowledge. This interpretation of revelation in terms of information about ritual requirements, and relatively petty matters, by means of divination, dreams, and prediction, can no longer hold the attention of serious-minded men."

It is not my purpose to discuss all the statements here given. But certainly one thing is clear; Badè denies the truth of the Biblical claim that no "prophecy ever came by the will of a man, but men spake from God, being moved by the Holy Spirit." II Pet. 1:21. That all scripture is God-breathed is for him only a fiction of pious minds. When the Old Testament reads, "Thus saith the Lord," or uses some similar expression, the statement is not to be understood in its literal sense, but only as the lofty statement of a seer in Israel or Judah.

It is necessary to repeat that the inquiry before us is one purely of history. Whether God at any time broke the silence of the ages, and through intelligible means conveyed truth and revealed Himself to man, although a matter of profoundest philosophical and theological significance, it is first of all a problem of history. Historical events and their meaning constitute two separate inquiries and must not be confused. At just this point many historians flounder. They

conceive of the Bible as being too much of an admixture of history and dogma to think it worth while to attempt a separation of the two. With this viewpoint Jewish history becomes an unsolvable enigma. The author believes that it is a child's task to separate historical events in the Bible from their meaning. If the record is taken as it stands and is allowed to be interpreted most naturally, history and doctrine are distinct.

Let one most cogent instance be cited. The Gospels, the Acts, and the Epistles give witness to the resurrection of Jesus from the dead. It is described as an event of history. Its meaning is also given, but is clearly distinct from the historical fact. Some historians would have us believe that the resurrection of Jesus is a *doctrine* or *dogma* of the church. True, indeed, a doctrine has arisen which explains the event, but this does not mean that doctrine and history are confused or blended. Of course, when the liberalistic historians have reduced this event to a dogma, it becomes an easy task to affirm that a difference of opinion may be held as to the truth of the dogma.

But this method of dealing with sacred history is utterly unscientific. The Bible is superb source material, documentary evidence par excellence, chiefly because of its pure monotheism and the unequalled ethical nature of the material, and these facts require that the source material must be given credence in due proportion as its ethical character is lofty. What could be more unscientific than to treat a record so charged with ethical truth as if all of its statements of history were pure fabrications!

Whether the opening sentence of the Epistle to the Hebrews is a statement of historical fact or only a dogma constitutes the profoundest historical inquiry that can be made by man. Those stately words are: "God, having of old time spoken unto the fathers in the prophets by divers portions and in divers manners, hath at the end of these days spoken unto us in his Son, whom he appointed heir of all things, through whom also he made the worlds; who being the effulgence of his glory, and the very image of his substance, and upholding all things by the word of his power, when he had made purification of sins, sat down on the right hand of the Majesty on high."

This statement constitutes the crucial test of the canons of historical criticism. Upon its solution stands or falls theistic and Christian belief. God has spoken or He has been eternally silent. If He has spoken, it is reasonable that an authentic record of it should exist. If He has not broken the silence of the ages, how do we know that He exists?

In dealing, then, with the truth of this statement we are first concerned with the origin of the Book recording it. We are concerned whether this Book is the product of man's evolutionary advance or whether its origin is due to an external and supernatural power.

The source material in our investigation is the Bible itself. Although much confirmatory evidence is available from archeology and ancient historical documents, the Bible alone explains the nature and method of its origin. It is well that this point be clearly understood, for the layman is often disturbed by the opinions voiced by Liberalists, thinking that scholarship has secret stores of knowledge which warrant a denial

of the traditional views. No such fund of information exists. The Bible alone is the sole source of information on this question. Whatever statements any one makes must find adequate support in the source material. This is the law of evidence.

Another unique fact needs to be noticed. The Bible is the object of investigation, and at the same time constitutes the evidence for its origin. This shows the supreme importance that must be attached to the character of the Book. How are we to believe its statements concerning its origin if the general contents of the book command no respect? On the other hand, if the work is ethical through and through, the highest credence must be placed in its statements concerning its origin.

It is plainly seen that the subject-matter that might be marshalled in this discussion is almost limitless; far too extensive, indeed, to be given even passing mention in the narrow confines of a single chapter. I shall endeavor to touch only those points which bear on my specific thesis: Is the Christian Religion the product of man or the revelation of God?

Two main questions must be considered: Are the Christian Scriptures genuine? Are they authentic? The former seeks to determine whether the books of the Hebrew Old Testament and Greek New Testament are identical with the original autographs, while in the latter, the truthfulness of the record is determined.

The answer to the former involves the study of the historical growth of the Book, from both external and internal sources. The subject-matter divides itself into two parts: the origin of the Old Testament

and of the New Testament. And of each of these the inquiry is twofold: 1. How did the canon of Scripture arise? 2. Does our present text correspond with the original autographs? It may be more convenient to work backward in this discussion, taking up first the New Testament, then the Old.

I. HISTORY OF THE NEW TESTAMENT CANON

In tracing the history of the New Testament Canon, the sixteen centuries lying between the date of the translation of the Authorized Version and the time when the New Testament Canon was first considered established can be passed over without comment because no one challenges its history during that period. A good starting point may be made by considering the question of the canon at the Council of Carthage in 397 A. D. It decreed that, "aside from the Canonical Scriptures, nothing is to be read in church under the name of Divine Scriptures." A full list of the books of the New Testament is given. During the century preceding this in the writings of Isidore of Pelusium, Cyril of Jerusalem (d. 386), Gregory of Nazianzen (d. 390), Athanasius, Eusebius (d. 340), Cyrian, Dionysius of Alexandria (d. 265) and Origen (d. 254) we find a settled canon, but some difference of opinion as to its extent, Eusebius speaking of the disputed books, i. e., those which had obtained only partial recognition (James, Jude, II Peter, II John and Revelation).

Continuing the backward march, the Muratorian Fragment stands out as of vital interest. This document, dating some time near the end of the second century, gives a list of the New Testament books. It

mentions all but Hebrews, I and II Peter and James. "In this list we have virtually the real position of the canon at the close of 2nd century." Irenaeus, Tertullian and Clement of Alexandria are representative men of this century. Concerning the testimony of these men Riggs says, "He (Irenaeus) had . . . a wide acquaintance with the churches, and was peculiarly competent to speak concerning the general judgment of the Christian world. As a pupil of Polycarp, who was a disciple of John, he is connected with the Apostles themselves. An earnest defender of the truth, he makes the New Testament in great part his authority, and often appeals to it. The four Gospels, the Acts, the Epistles of Paul, several of the Catholic [General] epistles and the Apocalypse [Revelation] are to him Scripture in the fullest sense. They are genuine and authoritative, as much so as the Old Testament ever was. . . . Tertullian takes virtually the same position (*Adv. Marc.*, IV, 2), while Clement of Alexandria quotes all four gospels as 'Scripture'. By the end of the Second century the canon of the Gospels was settled. The same is true also of the Pauline Epistles."¹

Riggs further states that "in considering all this testimony two facts should have emphasis: (1) its wide extent: Clement and Irenaeus represent parts of Christendom which are widely separated; (2) the relation of these men to those who have gone before them. Their lives together with those before them spanned nearly the whole time from the apostles."

¹ International Standard Bible Encyclopedia. Art. *Canon of the N. T.*, p. 565.

From this point backward to the Apostles we have the period of beginnings as to canonization. In the apologies and polemics of the second century we note the emergence of the Gospels and Pauline Epistles as equivalents in value with the Old Testament Scriptures. This is a fact of no small significance. Schooled as they were to the notion of the Scriptures (Old Testament) as being a fixed quantity, an addition to the body of sacred writings could be made only on the basis of sufficient evidence that the new writings were inspired in the same way as the Old Testament Scriptures. The trend of the period is well indicated in the Epistle of Barnabas where the phrase, "it is written," is applied to a New Testament book. The Shepherd of Hermas (cir. 130, A. D.) and "The Teaching of the Twelve Apostles" (cir. 120, A. D.) are saturated with references to New Testament writings. So also in the writings of Ignatius, Polycarp and Clement. On these writers Riggs says, "It is not enough to say that they bring us reminiscences or quotations from this or that book. Their thought is tinctured all through with New Testament truth."² During the interval between the writing of the books and the time of these Fathers, collections of the Books had to be made. Everywhere and at all times one is conscious of a profound principle at work. These books did not come together simply because of their peculiar merit, but wholly *because of their being Scripture*. The books were their own attestation, and they did not need a

² *Ibid.*, p. 564.

council, nor was there ever one, which determined their value. "It is very remarkable that no General Council from the earliest times undertook to define the Canon."³

This sublime story of the formation of the Canon settles several great problems concerning the origin of the New Testament writings: (1) the date of their writing is conclusively proved as being prior to the close of the first century; (2) The author and approximate date of almost every book is firmly established from the earliest times; (3) The recording by eye-witnesses or competent historians of the most wonderful events of world history is settled beyond question.

II. HISTORY OF THE NEW TESTAMENT TEXT

The textual history of the New Testament is also clear and decisive. Concerning the extent and value of the ancient manuscripts, Dr. Nestle writes: "For no literary production of antiquity is there such a wealth of manuscripts as for the New Testament. Our classical scholars would rejoice were they as fortunate with Homer or Sophocles, Plato or Aristotle, Cicero or Tacitus, as Bible students are with their New Testament. The oldest complete manuscripts of Homer that we have date from the thirteenth century A. D., and only separate papyrus fragments go back to the Alexandrian age. All that is extant of Sophocles we owe to a single MS. [manuscript], dating from the eighth or ninth century, in the Laurentian Library at Florence. But of the New Testament,

³ Angus-Green, *The Cyclopedic Handbook to the Bible*, p. 36.

3,829 MSS. [manuscripts] have been catalogued to the present time."⁴

The manuscripts are divided into two classes: the Uncials, written in capital letters, and the Cursive, written in small running hand, the former being earlier than the tenth century; the latter later than the ninth. The testimony to the text of the cursives is naturally less valuable than that of the uncials, but it must be remembered that, in the words of Dr. Nestle, "the text of a late manuscript may be derived from a very early and good source through comparatively few intermediaries," and that "it is possible to reconstruct a lost original by means of a comparison of several witnesses."⁵ Of the more ancient manuscripts, that is, the Uncials, a smaller number is in existence: "two, one being intact, are referred to the fourth century; two to the fifth, along with a number of large fragments; seven, with many fragments also to the sixth century; and the others are scattered along from the sixth to the tenth century."⁶ By reason of their great age these are recognized as the best in existence. They seem to be free from later additions and corruptions. It is reasonable to believe that the nearer we approach the time of the original copies, the more nearly accurate the text is likely to be.

Another source of evidence to the text is the Lectionaries, or collections of the Gospels and Epistles for reading in the Greek Church. Drs. Angus-Green write: "These are naturally executed with special

⁴ Quoted by Angus-Green, *Ibid.*, p. 48.

⁵ Quoted by Angus-Green, *Ibid.*, p. 52.

⁶ Bissel, *The Historic Origin of the Bible*, p. 101.

care, and in large clear characters. For the passages contained in them no more valuable testimony of a similar date exists."⁷

A third source of evidence is in the ancient versions. Some of these, the Syriac and old Latin, are older than the most ancient extant Greek codices. However, as materials for critical use, their value is less than that of the Greek manuscripts of the same age. Isaac Taylor sets forth the important apologetic value of translations of ancient literary works thus: "Among all the means for ascertaining the antiquity and genuineness of ancient books, none are more satisfactory or more complete than those afforded by the existence of early translations. Indeed, if such translations can be proved to have been made near to the time at which the author of the original work is believed to have lived, and if they correspond in the main with the existing text, and if they have descended to modern times through channels altogether independent of those which have conveyed the original work; and if, moreover, ancient translations of the same work in several languages are in existence, no kind of proof can be more perfect or trustworthy."⁸

Among these ancient translations, the Peshitta Syriac is one of the most important of the ancient witnesses to the New Testament. Other Syriac versions worthy of mention are the Curetonian, "believed by the most competent scholars to contain a yet earlier form of the text" than the Peshitta; Tatian's Diates-

⁷ Angus-Green, *op. cit.*, p. 52.

⁸ Quoted from Trans. of Ancient Books, p. 34 by Bissel, *op. cit.*, pp. 115, 116.

saron, a harmony of the Gospels, with the texts interwoven into one narrative; and the Philoxenian-Harclean, an extremely literal translation, often following the Greek to the violation of the Syriac idiom—a fact which renders it especially useful in textual criticism.

Latin versions of value are the Old Latin and the Vulgate. Other ancient versions worthy of notice are the Ethiopic, Egyptian and Gothic.

A fourth source of evidence is found in the early quotations. The early Christian writers quoted copiously from the Scriptures, so that, were all existing manuscripts and versions of the New Testament destroyed, the entire New Testament, with the exception of a few verses, could be reconstructed from their writings. Angus-Green summarize this testimony thus:

“In the first four centuries we have upwards of fifty authors who testify to facts told or implied in the Gospel narrative. The whole or fragments of the writings of these authors remain. The writings of about fifty others referred to by Jerome (A. D. 392) have perished. These authors belong to all parts of the world, from the Euphrates to the Pyrenees, from Northern Germany to the African Sahara. They speak the Syrian, the Greek, and the Latin tongues. They represent the belief of large bodies of professed Christians, and no less the admissions of multitudes who were not Christians. They agree in quoting Scripture as genuine and true. They refer to it as a distinct volume, universally received. They comment upon it and expound it. They refer to it as divine.”⁹

⁹ *Op. cit.*, p. 89.

From all the aforementioned sources thousands of differences will be found in the text of the New Testament, but in these very differences the almost absolute integrity of the text is established. Textual criticism is in every sense a science and through the incessant labors of great scholars, an almost absolutely accurate text has been secured. "It cannot be repeated too often," Bishop Westcott forcibly remarks, "that the text of the New Testament surpasses all other Greek texts in the antiquity, variety, and fullness of the evidence by which it is attested. About seven-eighth of the words are raised above all doubt by a unique combination of authorities; and of the questions which affect the remaining one-eighth, a great part are simply questions of order and form, and such that serious doubt does not appear to touch more than one-sixtieth part of the whole text."¹⁰

This evidence for the canon and text of the New Testament constitutes a gigantic historical argument to its genuineness. "If its truth be acknowledged," say Angus-Green, "it places an inquirer in the position of a contemporary of our Lord, leaving the claims of His religion to be established by other evidence."¹¹ To these claims I will give attention in a later section.

III. HISTORY OF THE OLD TESTAMENT CANON

Let us now observe the building up of the Old Testament. A convenient starting point is found in the New Testament. The first thing that strikes one's

¹⁰ Quoted from *Some Lessons of the Revised Version*, pp. 209, 210, by Angus-Green, *ibid.*, p. 76.

¹¹ *Op. cit.*, p. 59.

attention is the fact that the Scriptures (Old Testament) are a fixed body of writings existing in three main divisions: the law of Moses, the prophets, and the psalms. (Lk. 24:44). No hint is given in the New Testament why this threefold division was made or what it signified.

This threefold division of the Old Testament is found also in the apocryphal Book of Ecclesiasticus. In the prologue to the book written by the author's grandson, who translated his grandfather's Hebrew work into Greek, are found "three distinct references to the Hebrew Scriptures under the threefold division of the Jewish Canon—the Law and the Prophets and the others that have followed in their steps,' 'the Law and the Prophets and the other books of our fathers,' 'the Law itself, and the prophecies and the rest of the books R. V.'"¹² The grandfather, Jesus ben Sirach, wrote his book soon after B. C. 200. He makes "specific reference to every book of the Law and the Prophets and to most of the Hagiographa. The order of their narrative is followed, while an express mention of 'the Twelve Prophets' shows that in his time this collection as it appears in the Hebrew Canon had long been formed. Here, then, is proof that two centuries before the Christian era the Law and the Prophets, and at least the greater part of the Hagiographa, had taken their place as Scripture."¹³

The 250 years lying between ben Sirach and Ezra yield no evidence, so we must pass to the notes given in the Old Testament itself as to the origin of

¹² Angus-Green, *op. cit.*, p. 21, 22.

¹³ *Ibid.*, p. 22.

its several parts. Before leaving the consideration of the Old Testament canon as a whole, the meaning of this threefold division ought, if possible, to be ascertained. "It represents," says Dr. S. R. Driver, "three successive stages in the history of the collection."¹⁴ He holds also that "internal evidence points to the conclusion that the Law could scarcely have been completed, and accepted formally, as a whole, as canonical before 444 B. C. (cf. Neh. 8-10); that the 'Prophets' were completed and so recognized about 250 B. C., and the Hagiographa between about 150 and 100 B. C."

Against this quite generally accepted view of Driver must be urged several weighty considerations, which, I believe, invalidate his statements. In the first place, it is apparent that Driver's view of the canon is not based on Biblical data. He speaks as though a book or a group of books became canonical through a process of recognition on the part of the people. Our source material, the Bible, gives no hint of such a process. "Their recognition," Dr. J. H. Raven rightly comments, "was the effect and not the cause of their canonicity. They were canonical because divinely inspired, and possessed divine authority from their first promulgation."¹⁵ Such is the explicit meaning of such passages as Ex. 24:1-4; Josh. 8:30-35; II Ki. 22:8-23:3 and Neh. 8:1-8.

In the second place, clear evidence both internal and external shows that the time of the completion of the Old Testament canon is not, as Driver holds,

¹⁴ Art. Bible, Ency. Brit., Vol. 3, p. 850 (11th ed.).

¹⁵ *Old Testament Introduction*, p. 25.

as late as 150 or 100 B. C. The external evidence given above pushes back the date at least to 200 B. C., at which time the canon was already for a long time a fixed quantity. Internal evidence shows that several of the books of the third division (Job, Proverbs, Song of Solomon, and many Psalms) are older than several books in the second division (Kings, Ezekiel, Haggai, Zechariah, and Malachi). And according to Jewish tradition, inspiration ceased with Malachi (Raven). Furthermore, internal evidence points to the earlier dating of some books, notably Daniel, than Driver admits. See Dr. R. D. Wilson's "Studies in the Book of Daniel" for a full and conclusive discussion of this question.

In view of the proper dating of the several books of the second and third divisions Driver does not give adequate account for the names of these two divisions, the Prophets and the Writings, respectively. According to Driver's theory, Ezra, Nehemiah, Chronicles, and Daniel ought to be placed in the "Former Prophets", and the "Latter Prophets", respectively. But such is not the case.

This leads to a third point: The tripartite division of the Old Testament is more satisfactorily accounted for by basing the division upon the official status of the authors. Of the first division Moses, the lawgiver, is author; of the second those who were *officially* prophets were authors; and of the third those not officially prophets were authors. This accounts for the prophetic viewpoint of the Books Joshua, Judges, Samuel and Kings; and for the grouping together of Daniel, Ezra, Nehemiah, and Chronicles because their authors were not officially prophets.

Having traced the origin of the Old Testament as a whole to some point between the days of Ezra and Jesus ben Sirach, the next logical step would be to examine each book separately for its notes of time as to origin. On account of the narrow confines of my thesis, this cannot be carried out fully. For adequate and satisfactory information on this subject see the Introductions by Raven, Angus-Green, Bissell, Girdlestone, and W. H. Green, the articles on the several Books of the Old Testament in the International Standard Bible Encyclopaedia, and Davis' Dictionary of the Bible. The crux of the historical problem concerning the origin of the Christian religion ultimately rests upon the account we give of the origin of the Pentateuch. The chief problem is this: Is the Pentateuch Mosaic or is the literary analysis of the higher critics and the consequent late dating of the final completed work correct? The solution of this problem will prepare us to solve the initial question given at the beginning of the chapter.

IV. THE PENTATEUCH IN PARTICULAR

In order that the issue may be clearly drawn I quote from Badè's, "The Old Testament in the Light of To-day," statements which represent the radical modernistic view of the Pentateuch. On p. 18 he says: "Probably few Old Testament scholars would now venture to claim a genuinely Mosaic origin for even the smallest literary fragments of the Pentateuch." On the same page he continues: "The fact is that the earliest cycles of tradition about the patriarchs, the exodus, and Moses were collected and edited for the first time during the ninth and eighth centuries B. C."

Explaining the so-called documents supposed to underlie the Pentateuch, he says on page 19: "The collection of traditions made in Judah is known as J; the one made in the north, in Ephraim, is designated by the symbol E, and their compilers are known as the Jahvist and Elohist, respectively. Both exhibit to some extent the point of view of the earlier prophets, and are, therefore, known as the prophetic documents. About 650 B. C. they were compiled into a single document (JE) and suffered considerably in the process, from expurgation, editing, and harmonizing. A hundred years later they were subjected to a still more thorough revision at the hands of the Deuteronomic editors. After two more centuries had rolled by they were incorporated into the framework of the Priests' Code, and received the most radical—perhaps one should say most distorting—revision of all."

This viewpoint asserts at least three things: 1. The unity found in the Pentateuch is that which characterizes a compilation rather than the work of a single author. 2. There are no genuinely Mosaic elements in the five books ascribed to him. 3. The present contents of the Pentateuch, being the result (as Badè holds) of compilation, expurgation, editing, and harmonizing, no longer gives us an authentic record of the times which it purports to give.

In answer I shall seek to show, first, that a profound unity pervades the Pentateuch, such as characterizes the work of a single author; second, that its real author was Moses, although there may be a very limited number of post-Mosaic additions to it; and third, that the record is authentic.

1. The Unity of the Pentateuch

The unity of a compilation differs from that of a single author. A compilation may have a unity of purpose, a general structural unity or plan, and even that of general viewpoint. But the unity of authorship strikes deeper, there is greater unity of thought, of style, of structure, of use of words, etc., which cannot be true of a compilation.

It should be noticed also that when a given document purports to be a unity, having all external evidence in its favor it should be considered such until proved otherwise. Applying this principle to the Pentateuch, in view of the absolutely unanimous testimony of external evidence of the Pentateuch, it is following reasonable Biblical criticism to consider this work such a unity until sufficient evidence is forthcoming to prove otherwise.

There are at least six outstanding reasons for believing that the unity of the Pentateuch is such as a single author would produce.

(1) The profound use of the Divine names. Throughout the Pentateuch two names are employed for God, Elohim and Jehovah. When reasons are sought for this interchange of these two names, one encounters phenomena that at once suggest a profound distinction in their meaning. One might cite the opening chapters of Genesis for illustration. Chapter one gives an account of the creation of the universe and represents Elohim as the God of the universe. On the other hand, chapter two, in accord with a characteristic of Hebrew literature, repeats the story of the creation, but this time from a different

viewpoint. It is a fuller account of man's creation, and shows more vividly the personal relation between the God of the universe and man, the crowning achievement of His creation. Throughout the Pentateuch this distinction is faithfully adhered to. Whenever God is spoken of and regarded as Creator and Lord of the universe, the *title* *Elohim* is used; and whenever He is referred to in relation to His people as the Covenant-making God, the God of His people, the *name* *Jehovah* is given. On almost every page of the Pentateuch this distinction is clearly apparent. Angus-Green cite a notable instance: "In the interview of Abraham with the heathen King Abimelech, resulting in the covenant of Beer-sheba (Gen. 21), the name of God employed is *Elohim* (21:22, 23), but when Abraham worshipped there alone, he called upon *Jehovah*. (21:33). But the critics, ignoring the obvious reason for this interchange of names, tell us that verse 33 is 'a fragment of J inserted by R in a narrative of E.' Can criticism be more inept than this?"¹⁶ Another striking illustration of interchange of divine names is found in Gen. 28:10-18. Here it is the angels of *Elohim* who are ascending and descending on the ladder, but *Jehovah* stood above and spoke. The critical explanation of this is as inadequate as in the one above. Dr. W. H. Green in "The Higher Criticism of the Pentateuch" (pp. 92-98) gives "a long list of similarly futile criticisms." Let it be observed then that this phenomenon, namely, the profound use of the divine names, is evidence that the

¹⁶ *Op. cit.*, p. 399.

unity of the Pentateuch is such as a single author would produce.

(2) Another evidence is found in the inseparability of the laws and the history in which they are imbedded. Angus-Green say there is "an exact correspondence between the narrative and the institutions, showing that both had one author. The laws are not given in the form of statutes, but are mixed with narrative, and are inserted as the exigencies requiring them arose. They are often briefly sketched, and afterwards repeated at greater length, with such modifications as were demanded by altered circumstances."¹⁷ Let us note one cogent instance. Exodus 19 to 24 purports to give an account of the giving of the Book of the Covenant as well as the covenant itself. The narrative represents the transaction as taking place at Mt. Sinai at a crucial period in Israel's history. No one employing reasonable principles of criticism would find any grounds for thinking that this piece of legislation was not given at the time and under the circumstances which the narrative supplies. But Badè, contrary to the evidence furnished by the original document, holds that the "Book of the Covenant (Ex. 20:22-23:33) contains much that is applicable to the life of half-nomads, a fact which is quite intelligible if this group of laws was collected in the grazing regions of the northern kingdom among men like Amos of Tekoa."¹⁸

The fatal objection to this statement is that there is no evidence for it in the source document.

¹⁷ *Ibid.*, p. 391.

¹⁸ *The Old Testament in the Light of To-day*, p. 31.

But our only source of information *does say* concerning the origin of the Book of the Covenant: "And God spake all these words," Ex. 20:1; "And Jehovah said unto Moses," 20:22; and, "Now these are the ordinances which thou shalt set before them." 21:1. And finally the source material states that "Moses wrote all the words of Jehovah." 24:4. In this instance Badè clearly violates the law of evidence. He ruthlessly rejects the testimony that the document gives as to its own origin. Are we still living in the medieval ages, the days of the Spanish Inquisition, when a man was regarded guilty until he proved his innocence?

(3) The peculiarities of Deuteronomy are in perfect accord with the circumstances in which it was given. F. H. Woods says: "The majority of critics believe this book of the law to have been the result of a pious fraud promulgated by Hilkiyah and Shaphan with the intention of deceiving Josiah into the belief that the reforms which they desired were the express command of God revealed to Moses."¹⁹ This statement is also contrary to the evidence presented in the source document. The account in II Kings 22 states that the book was found by Hilkiyah, that it was considered by himself, Shaphan, Huldah, and Josiah as the book of the law coming from Moses. Further, Raven argues that no sufficient motive for the forgery of this book either in the time of Josiah or of Manasseh, as some critics hold, can be cited. If it had been forgery there were many persons in Judah who had

¹⁹ Quoted by Raven, *op. cit.*, p. 111, from Hastings Dictionary of the Bible, Vol. I, p. 368.

powerful motives for exposing it. As the author just mentioned states: "The forgery hypothesis requires two improbabilities—that the author was a marvelous genius and that all the rest of the nation were fools."

Green holds that it was quite natural that some modifications of preëxisting laws should be made in Deuteronomy after the lapse of nearly forty years, whether with the view of rendering laws more explicit (Ex. 21:2 ff., comp. Deut. 15:12, 17; Ex. 22:25, comp. Deut. 23:19, 20; Ex. 22:26, comp. Deut. 24:10-13; Ex. 22:31, comp. Deut. 14:21), or for the sake of a further extension of the same principle (Ex. 23:10 ff., comp. Deut. 15:1 ff.), or because rendered necessary by the transition from the wilderness to Canaan (Lev. 17:3, 4, comp. Deut. 12:15; Ex. 22:30, comp. Deut. 15:19, 20; the omission of Lev. 11:21, 22 from Deut. 14).

(4) The peculiarities of Leviticus are explained adequately by bearing in mind that it is a book of ritual for the priests and contains laws which the people in general did not need to know.

(5) The language of the Pentateuch also argues for unity of authorship. "The language of the Pentateuch," says Green, "is throughout the Hebrew of the purest period, with no trace of later words, or forms, or constructions, or of the Chaldaisms of the exile."²⁰

(6) The profound unity of thought argues for

²⁰ Art. "Was Moses the Author of the Pentateuch?" under "Pentateuch" in the *Schaff-Herzog Encyclopedia* 1888, Vol. III, p. 1799.

unity of authorship. This may be observed from several angles, but only one will be noted. Possibly the most cogent example is seen in its doctrinal content. Genesis is clearly a book of beginnings—the beginning of the world, of man, of sin, of salvation, the chosen race, etc. Throughout the whole of the Pentateuch it is consistently taught that the righteous are justified by faith, that redemption is obtained through shedding of blood, that God saves mankind, that sin is the transgression of God's law.

2. Moses the Author of the Pentateuch

All evidence, both internal and external, attests uniformly to the truth of this statement. I begin first with the direct internal claims. In Deut. 31:9-11 we read: "And Moses wrote this law, and delivered it unto the priests the sons of Levi . . . and unto the elders of Israel. And Moses commanded them, saying, At the end of every seven years . . . in the feast of the tabernacles, when all Israel is come to appear before Jehovah thy God . . . thou shalt read this law before all Israel in their hearing."

God then tells Moses of his near approaching death, of the early apostasy of the children of Israel, of His punishment of Israel for their sin, and of the song which he is to write and teach to Israel for a witness against Israel. A concluding sentence then states (vv. 24-26): "And it came to pass, when Moses had made an end of writing the words of this law in a book, until they were finished, that Moses commanded the Levites, that bare the ark of the covenant of Jehovah, saying, Take this book of the law, and

put it by the side of the ark of the covenant of Jehovah your God."

The question naturally arises, "to how much of a body of writings does this 'book' refer?" Green states that "this has very generally been understood to affirm that the entire volume of the Pentateuch, known in later times as 'the law of Moses,' was now completed by the addition of Deuteronomy."²¹ He bases this inference upon two reasons: 1. The Book of Joshua which stands in obvious and intimate relation to Deuteronomy cannot misrepresent its meaning. As he shows: "'This book of the Law' (Josh. 1:8) contained (ver. 7) 'all the law which Moses commanded;' and the commands of Moses by which Joshua was guided were not limited to Deuteronomy."²² Numerous cross references follow. He states further that "it is not improbable, from (Josh.) 8:31-34, that 'The Book of the Law of Moses' was more comprehensive than 'the law of Moses,' and that it was the same as 'the book' referred to in Exod. 17:14, and contained whatever else Moses wrote in connection with the law; which is further confirmed by the fact, that a record made by Joshua himself was written in 'The Book of the Law' (Josh. 24:26). 2. "The volume written by Moses was to be read to the people at the feast of tabernacles (Neh. 8, where vers. 14 ff. show that Ezra understood Lev. 23:40-42 to be included), and to be laid up beside the ark, and preserved in the sanctuary (II Kings 22:8); and this has commonly been understood to be the entire Pen-

²¹ *Ibid.*, p. 1796.

²² *Ibid.*, pp. 1796, 1797.

tateuch." Green adds that "not a few of those who deny that Moses wrote the Pentateuch, nevertheless admit that the words in question were intended to assert that he did."

Several references in the Pentateuch make it clear that a book was in course of preparation. Thus Ex. 17:14, "And Jehovah said unto Moses, Write this for a memorial in a book;" and Num. 33:2, "And Moses wrote their goings out according to their journeys by the commandment of Jehovah." At least the following portions are directly ascribed to Moses: Ex. 20-23; 34:10-26; Deuteronomy (almost in its entirety). Throughout Exodus, Leviticus, and Numbers there are no less than one hundred forty statements like this: "And Jehovah spake unto Moses saying," which make Moses the spokesman of God to the people of fully seven-eighths of these three books.

Unless evidence is forthcoming to the contrary, it may be concluded that, since the Pentateuch reveals a unity such as a single author produces and since the direct claims for Mosaic authorship cover such a large portion of the whole, Moses is the author of the whole. It is my conviction that this conclusion is valid because it seems to rest upon reasonable Biblical criticism. It is given much support by numerous other internal evidences, such as the fact that the author has intimate knowledge of Egyptian customs, manners, geography, institutions and religion, such as Moses, educated in all the wisdom of that nation, alone could have had, and no one after his time could have possessed.

The testimony of external evidence is likewise uniform in its claim for Mosaic authorship. We have

already observed that the Book of Joshua ascribes this work to Moses. Almost every Old Testament book following Joshua quotes or in some manner refers to Moses' writings.

Of prime importance are the references of those prophets who lived before the time that critics admit the Pentateuch to have been in existence. Thus Hosea and Amos show that the Five Books were recognized in the Northern Kingdom. Deuteronomy was known to Hosea and Isaiah. This evidence certainly invalidates the critical hypothesis.

To this must be added the uniform testimony of the New Testament. "*Our Lord and His Apostles* consistently assume and refer to the Mosaic origin of the Pentateuch."²³

Up to this point I have almost completely ignored the arguments of those who do not believe in the Mosaic authorship of the Pentateuch. However, most of what has been given undermines their hypotheses. Most critics will admit that the internal and external evidences point to Mosaic authorship, but will deny the validity of the evidences. It has always seemed to the author that the literary analysis, in addition to ignoring the evidences already presented, reveals a hopeless confusion and a lack of scientific proof.

The history of this criticism confirms this conclusion. Astruc, Vitranga and Eichhorn began with the clue of the use of different divine names, Jehovah and Elohim, as the evidence for different documents underlying Genesis. When two documents did not solve

²³ Angus-Green, *op. cit.*, p. 390.

the mystery, more were added until the other extreme was reached by Vater and Hartman to the effect that the Pentateuch is composed of thirty or more fragments. Later the supplement hypothesis was formulated, which held that the "Elohists prepared a complete history and the Jehovists added to it, making occasional alterations of his own." This is the position of Bleek, Tuch, Staheln, De Wette and Knobel. This theory was modified by Ewald and Hupfeld, who increased the number of those who supplemented the history, and asserted that they operated at different periods. This crystallization hypothesis is the *reductio ad absurdum* of the supplement hypothesis just as the fragment hypothesis is of the former document theory. But the crystallization hypothesis has given way to what might be called the modified document theory, "which differs from the original document hypothesis by asserting that the Jehovist was a continuous and independent document. This is the view current to-day in liberal circles." Its leading representatives (some dead, some still living) are Graf, Wellhausen, Kuenen, Cornill, Driver, Cheyne, Haupt, Briggs, Powis Smith, Badè, and many others. I have already given Badè's own statement of this theory.

The unscientific nature and absurdity of the whole documentary hypothesis may be clearly seen by noting some of the fatal admissions of the higher critics. Dr. James Orr, in his work, "The Problem of the Old Testament," gives an extended analysis of the "Difficulties and Perplexities of the Critical Hypothesis," in which this great scholar seems to show conclusively that these difficulties and perplexities are a *reductio ad absurdum* of the critical meth-

ods. Any one who has an understanding of the views of higher critics will appreciate how fatal to their theories the following statements, quoted by Orr, are.²⁴ "In the main," says Wellhausen, "J E is a composition out of these parallel books of history," adding, "We see how uncommonly similar these two history books must have been." Concerning J and E, Addis says, "The two books evidently proceeded in parallel lines of narrative, and it is often hard—nay, impossible—to say whether a particular section of the Hexateuch [the Pentateuch and Joshua, considered by higher critics as one work] belongs to the Jahvist or the Elohist." "Indeed," says Dr. Driver, "stylistic criteria alone would not generally suffice to distinguish J and E; though, when the distinction has been effected by other means, slight differences of style appear to disclose themselves." Kuenen confesses that "the mutual relation of J and E is one of the most vexed questions of the criticism of the Pentateuch." "It must be admitted," he says at another place, "that the resemblance between E and the narrative now united with it is sometimes bewilderingly close, so that when the use of Elohim does not put us on the track, we are almost at a loss for means of carrying the analysis through."

One might ask with reason, since the Pentateuch exists now as one work and external testimony is unanimous for its unity of authorship, does not this theory of composite authorship enter a blind alley, if critics are "almost at a loss for means of carrying the analysis through?" In concluding his analysis of the

²⁴ *The Problem of the Old Testament*, pp. 218-220.

critical views concerning the separate existence of J and E, Orr says:

"The argument for unity is confirmed by the *violent expedients* which are found necessary to make the opposite hypothesis workable. We have specially in view here the place given, and the functions ascribed, to that convenient, but most unsatisfactory, appendage of the critical theory—the *Redactor*. The behaviour of this remarkable individual—or series of individuals (R^1 , R^2 , R^3 , etc.)—is one of the most puzzling features in the whole case. At times he (R) puts his sections side by side, or alternates them, with little alteration; again he weaves them together into the most complicated literary webs; yet again he 'works them up' till the separate existence of the documents is lost in the blend. At one time, as Klostermann says, he shows an almost 'demoniac art' in combining and relating; at another, an incapacity verging on imbecility. At one moment he is phenomenally alert in smoothing out difficulties, correcting mistakes, and interpolating harmonistic clauses; at another, he leaves the most glaring contradictions, in the critic's view, to stand side by side. Now he copies J's style, now D's, now P's. A serviceable, but somewhat unaccountable personage!"²⁵

Space does not permit me to give further analysis of the present documentary hypothesis. I wish to commend to my readers such monumental works as those of W. Henry Green, Bissell, Angus, Orr, Bartlett, Girdlestone, Warfield, Raven, Wilson, and others, whose arguments have never, to my knowledge,

²⁵ *Ibid.*, p. 220.

been answered. I conclude this study with this position: The testimony of the Pentateuch, as to its origin and the confirmatory testimony of the rest of the Bible, stands unimpeached. This testimony is unanimous in its support of Mosaic authorship. No other position is scientifically tenable.

V. THE ORIGIN OF THE REMAINING BOOKS OF THE OLD TESTAMENT

If my position on the Pentateuch is sound, the origin of the remaining books becomes a comparatively simple inquiry. Authentic Biblical history is carried back to an earlier date than that of these books. In other words, we are in the sphere of authentic history. On this account brevity is permissible. The internal and external evidences as to the origin of these Books are adequate.

External tradition found in the Talmud claims that Joshua wrote the book that bears his name. The Book itself testifies that "Joshua wrote these words in the Book of the Law of God," which may refer to the entire Book (24:26). At least, it is a product of the age in which this great leader lived.

The Book of Judges, according to Rabbinical tradition, was written by Samuel, and internal evidence (Judges 1:21; cf. II Sam. 5:6-8; Judges 1:29; cf. I Kings 9:16; Judges 17:6; 18:1, etc.) confines the date to about his time. As to the date and authorship of the Books of Samuel, very little internal or external testimony exists. There seems to be no reason for rejecting the ancient view that Samuel himself wrote I Sam. 1-24, and that Nathan and Gad wrote

the remainder. These two men were his contemporaries, and held the prophetic office, which fact would qualify them for having had a part in writing one of the books among the "Former Prophets," according to the Hebrew arrangement of books. "The fact that David's death is not recorded," says Raven, "makes it probable that the books were written before it occurred, with the aid of older documents."²⁶ Nothing certain is known of the authorship of Kings. Though the Talmud says that Jeremiah was the author, the events described reach to the liberation of Jehoiachin from prison in Babylon some twenty-five years later than the latest notice of the prophet (Jer. 44). It is clear that the writer was a prophet and wrote from authentic sources. Ezra is the author of Chronicles according to Jewish tradition. The fact that the conclusion of Chronicles is identical with the beginning of Ezra seems to corroborate this tradition.

Almost all the prophetic books bear strong external and internal evidence for having been written by the men whose names they bear. The authorship of some has been questioned by some critics, but their arguments have been answered adequately by such able scholars as Angus, Raven, W. H. Green, Wilson and others.

One hundred of the Psalms are assigned by their inscriptions to David, the Sons of Korah, Asaph, Solomon, Ethan, and Moses. These inscriptions have been the center of attack by recent critics, but the mature and able scholarship of Professor Robert Dick Wilson, after an exhaustive study of this subject, has

²⁶ *Op. cit.*, p. 167.

led to the conviction "that there is good and sufficient reason for concluding that the headings of the Psalms are as a whole correct; (and) that it is probable that all of the Psalms were written before 400 B. C."

Internal evidence assigns the authorship of Proverbs to Solomon (chaps. 1-29), Agur (chap. 30), and Lemuel (chap. 31). Ecclesiastes and the Song of Songs are also assigned to Solomon both on internal and external grounds. The author of Job is unknown, but its place in the canon is unquestioned.

VI. THE CONCLUSIONS OF A GREAT SEMITIC SCHOLAR

In further confirmation of the conclusions arrived at in my discussion of the Old Testament, I wish to refer the reader to a notable book. I refer to "A Scientific Investigation of the Old Testament," which is the fruit of the late Dr. Robert Dick Wilson's mature and painstaking scholarship, a work concerning which Dr. L. S. Keyser, a competent authority, says: "If we mistake not, Dr. Wilson's book marks an epoch and a turning-point in the present religious controversy." When an authority like Wilson concludes "that no one knows enough to show that the true text of the Old Testament in its true interpretation is not true," it is well worth our while to scrutinize most closely the works of those who do attempt to discredit the text. Dr. Wilson in the opening sentence of his Preface states:

"It is the purpose of the present volume to show that intelligent Christians have a reasonable ground for concluding that the text of the Old Testament which we have is substantially correct, and that in its

true and obvious meaning, it has a right to be considered a part of the 'infallible rule of faith and practice' that we have in the Holy Scriptures."

Our author's method may be called the evidential method; "because," as he says, "I have sought to follow the Laws of Evidence as applied to documents admitted in our courts of law. I presume that the *prima facie* evidence of the documents of the Old Testament is to be received as true until it shall have been proved false. I hold, further, that the evidence of manuscripts and versions of the Egyptian, Babylonian and other documents outside the Bible confirms the *prima facie* evidence of the Biblical documents in general both as to text and meaning; and that this text and meaning cannot be corrected or changed simply in order to be brought into harmony with the opinions of men of our generation."

In the first chapter a sharp contrast is drawn between this method of criticism and that used by modernists, which might be termed the inquisitorial method. Taking up several examples from the Pentateuch which critics claim are not genuine, he shows that each bears three great *prima facie* marks of genuineness in documents—names, places, dates—in regard to which these critics have not been able to show that the statements of the Pentateuch are false. "As to these three specifications of the indictment," affirms Wilson, "the assured result of scientific criticism, in strict adherence to the law of evidence, is that Moses gave the laws which have his name at the time and places indicated in the documents attributed to him as the mouthpiece of Jehovah."

The second chapter is devoted to the evidence furnished by the text of the Old Testament. In an investigation of all subjects requiring special study or experience, the testimony of experts is necessary. Witnesses must give evidence of facts, not of opinions. In questions of philology and history it is the experiments, i. e., the investigation of the original sources, which afford the grounds for the opinions of the expert, that are the most important part of his evidence; for they give the facts on which his conclusions are based.

After exhibiting the evidence drawn from such direct sources as Hebrew manuscripts, versions, and inscriptions, the testimony supplied by the history of the transmission of the text of other ancient documents, and the unscientific methods of textual criticism used by critics, Wilson gives the conclusion, "that we have substantially the same text that was in the possession of Christ and the apostles, and, so far as anybody knows, the same as that written by the original composers of the Old Testament documents" (quoted from the Preface).

The Grammar also furnishes evidence. Critics have attempted to date documents or parts of documents according to certain peculiarities of grammatical forms and syntactical constructions of the language. But Wilson shows up their lack of knowledge and actual blunders in their attempt to marshall this evidence in their favor. His conclusions are based on a critical examination and study of almost every word in the Old Testament and an exhaustive study of all the Semitic literature. He has shown "that these

forms and constructions are irrelevant as evidence of the time at which a document was written" (quoted from the Preface).

Again, the Vocabulary furnishes evidence. Critics have dated documents on the basis of diction, style, ideas, and aim, to which no objection can be made, provided the four are used together and are not divorced. On insufficient or faulty evidence they have claimed that certain words are late, or that certain words have come into the Hebrew from the Aramaic, or the meaning and use of certain words are not true to the Hebrew, and on this basis have dated certain parts of the Old Testament. Again, the great Semitic scholar has discovered the weakness of liberal scholarship. Probably no other man could bring to bear on this particular point, as well as on this entire subject, the erudition brought by this scholar. He holds that "the assaults upon the integrity and trustworthiness of the Old Testament along the line of language have utterly failed. The critics have not succeeded in a single line of attack in showing that the diction and style of any part of the Old Testament are not in harmony with the ideas and aims of writers who lived at, or near, the time when the events occurred that are recorded in the various documents. In every case, it seems clear that the language suits the age at which the *prima facie* evidence of the document indicates that it was written."

In the fifth chapter the author shows that the framework of the Old Testament stands the tests which modern scientific research has brought to bear upon it. Here he shows that the chronological, geographical, and historical statements of the books of

the Old Testament canon are confirmed by the light shed by Egyptian and Babylonian history.

The strongest bulwark of all the lines of defense of the Old Testament Scriptures Wilson finds in "the undeniable uniqueness and superlative clearness and importance of the religious ideas contained in them."

"A study of the religious systems of the Egyptians, Babylonians, and other ancient peoples, has revealed to us a groping after God, if haply they might find Him; but nowhere among all the nations is it recorded that a clear apprehension of one living and true God—the creator and preserver, the guide, the judge, the saviour, and the sanctifier of His people—was attained." The other religions are outward, but the Old Testament religion is essentially inward. "It is the religion of the mind and heart, of love, joy, faith, hope, and salvation through the grace of God alone." At this point Wilson propounds and answers the fundamental question I have raised at the very beginning of this chapter: "How account for this religion? It must have come either by derivation, evolution, or revelation. The prophets say it came from God. No other theory can account for its uniqueness and its results, its superiority and its influence."

It may be well to recapitulate briefly the steps of our argument thus far in this chapter. The Christian Religion is the one true and final religion. Is it a human or a divine product? The proper answer to this question involves another problem, the origin of the Book which claims to be a divine product. The history of the canon and of the text, both of the New and of the Old Testaments, leads us to the conclusion that the Bible as we have it to-day in the original

tongues is identical, or almost so, with the autographs of the original penmen. Have we reasons, then, for believing that the supreme claims of these Scriptures as to their origin are true? The author believes that we have abundant and adequate reasons for believing this. It will immediately appear that the arguments for authenticity also constitute the proofs for the divine origin of the Bible which is the central thesis of this chapter. The reader is referred to the great apologetic works by such authors as Orr, Fisher, Keyser, Mullins, Fairbairn, and others, for extensive treatments of this vital subject.

VII. THE CHRISTIAN SCRIPTURES ARE AUTHENTIC AND DIVINE

As one reads and ponders the pages of the Holy Scriptures, one encounters many marks of truthfulness. At the same time one must ask, whence came this Book? Could it be a human product? The opening pages relate a most beautiful, sublime and profound account of the creation of the universe and of man. Its childlike simplicity, yet absolute harmony with the best that science and philosophy can give, satisfies the most erudite mind. Here is given a satisfying answer to the origin of matter, of life in its various forms, of man.

The great problem of sin and suffering, of man's natural depravity are here solved, pressing home to our hearts a truth all too true, namely, that sin is transgression of divine law, and that suffering follows in its wake. Here is fully accounted for the universal depraved state of the human race. Later sections of

the Book relate the awful sinfulness of the human heart. A terrible indictment of mankind is given in Gen. 6:5: "And Jehovah saw that the wickedness of man was great in the earth, and that every imagination of the thoughts of his heart was only evil continually." Later descriptions do not mitigate this statement in the least. For a few samples examine Isa. 1:2-6; Mk. 7:20-23; Rom. 1:18-32; Gal. 5:17-21. All must admit that this portrayal of the heinousness of sin is only too true. Could man have originated this accurate analysis?

But throughout the Book are delineated two great topics inseparably united: the one the self-revelation of God and the other the plan of salvation. God is revealed as infinitely holy, just, and righteous. He is the Creator, Preserver, and Governor of the Universe. Even though man has sinned, His grace and mercy abound toward the transgressor, but not without impinging on justice. This operation of His love is comprehended in the second great theme, the plan of salvation. In this great plan God pays the price of redemption, God changes the heart, God purifies the life, God changes the body into the likeness of His glorious body. These changes are effected in the lives of those who believe that His Son died for them. Could man have evolved this notion of God and this method of salvation?

But this method of salvation is not merely an idealistic vision; supernatural power is manifest in this world to authenticate the message. To Abraham a son was given in a way contrary to nature, this act serving as a credential for the unique message given to him. God delivered the children of Israel from

Egypt through a series of supernatural acts. When the religion of Jehovah was on the verge of being overthrown by the worshippers of Baal, He vindicated Himself and the religion by sending fire from heaven to consume a sacrifice. In the court of a heathen world-monarch, God, through miraculous acts, reminded the haughty king that the Deity of his captive Jews was Lord of lords and King of kings.

But God could no longer withhold Himself from man. He became flesh and dwelt among us. Jesus Christ is Immanuel (God is with us). His incarnation is the miracle of miracles. But He too carried adequate credentials. He turned water into wine, made the blind to see, the lame to walk, the dumb to speak; He raised the dead. He Himself was resurrected from the dead. When He returned again to the Father, the Holy Spirit came, and has since been performing marvelous works. Wretched, sin-cursed lives have been and are being transformed; enslaved men in bitterest bondage have been and are being freed. The Christian Church gives witness to the transformation of thousands, yes, millions, of lives by this same Power. Manifested power cannot be a fiction of the mind. I have experienced this change in my own life, and it is identical with the testimony of others who claim this experience. Who dares to challenge the reality of this experience? Because a blind man cannot understand color, is he in position to deny the experience of those who see? Neither dare any man who has not had an experience of Jesus Christ and His saving grace deny the reality of that experience. It is as real as color is to those who see. Whence

comes this power? Supernatural power comes only from God.

The righteous have eternal life. They shall experience the resurrection of their bodies. Clad in the likeness of Him, they shall dwell with God. "Behold the tabernacle of God is with men, and he shall dwell with them, and they shall be his peoples, and God himself shall be with them, and be their God." Who can draw away the veil hiding the future? None but God.

I bring this chapter to a close. I believe that we are warranted in believing that the Scriptures are both genuine and authentic. All scripture is inspired of God. Holy men of old spake from God. "God, having of old time spoken unto the fathers in the prophets by divers portions and in divers manners, hath at the end of these days spoken unto us in his Son." The Christian Religion is not the product of evolution. It is the product of God's revelation to man.

Chapter VII

THE MECHANISM OF EVOLUTION

Is an apology necessary for postponing to this point an examination of the alleged mechanism of evolution? It might be thought that this chapter ought to precede the foregoing one for the reason that a subject of a religious and not a strictly scientific nature was there discussed. But this order of treatment has been adopted with a distinct purpose. If evolution has attempted to account for the Christian religion, and the capacity for religion and ethics is recognized as the highest peak of attainment in the most advanced mammal, then it is proper to inquire in the realm of biology for the resident forces that are alleged to have brought matter into existence, originated life, differentiated it into species, evolved man with the marvelous attributes of human personality, and produced Him who was the quintessence of men, Jesus Christ. Is a vacuum a potential Jesus?

It is disappointing to read those sections of evolutionary works where pathetic attempts are made to account for the factors, or the mechanism, of evolution. It appears that every possible cause capable of producing evolution has been examined, and each, in turn, has yielded to its inquirers no response. Rather, it is admitted from every source that the facts prove the absence of any resident force in life-forms that

operate for the evolution of new and higher forms. Evolutionists exhibit a faith that would remove mountains, but from objective science no basis of knowledge can be found for the faith.

To lay the problem before us briefly, let me present three statements on strategic points. In the first place, Lull observes that "variation is the first and most fundamental evolutionary factor; in fact, the causes of variation are among the prime causes of evolution itself."¹ Over thirty years ago Spencer wrote, "Close contemplation of the facts impresses me more strongly than ever with the two alternatives—either there has been inheritance of 'acquired characters' or there has been no evolution."² A recent writer observes, "Since Weismann put forth his 'Germ Plasm Theory,' biologists have come everywhere to accept the view that *no acquired or environmentally produced characters are inherited!*"³ From these statements it is seen that the subject to be considered divides itself into two general inquiries: (1) Are variations unlimited or limited? Upgrade or on a plane? (2) Do life forms have a means of preserving, repeating, and accumulating variations?

I. ARE VARIATIONS UNLIMITED OR LIMITED?

UPGRADE OR ON A PLANE?

The reader will recall that in my discussion of the ninth alleged evidence of evolution, the united tes-

¹ Lull, *Organic Evolution*, p. 99.

² Quoted by Hamilton in *Princeton Theological Review*, July, 1924, p. 435, from *Contemporary Review* of 1893.

³ Floyd E. Hamilton in *Art. Evolution in Light of Modern Science*, *Princeton Theological Review*, July, 1924, p. 435.

timony of scientists was found to be that, in so far as scientific observation goes, there are absolutely no data for the mutation of one species into another. However, it is conceivable that variations are so slight that it would require a much greater length of time than that upon which observations are based in order to produce a perceptible mutation. Of course, data extending over hundreds of thousands of years are lacking; even geological science furnishes no intermediate steps, as has been shown in Chapter IV.

What, then, is the nature of the variations which do occur? Nature shows us that offspring is not absolutely identical with the parents; but these variations reveal well defined limits. These limits appear to be in what might be called the sum total of species characteristics. Investigation seems to show that each reproductive cell possesses this entirety of characteristics, and the carrier of this power seems to be located in the chromatin material. Only a part of the chromatin material is used to form the new individual after the conjugation of sperm and egg cells, but the species characteristics are perpetuated *in toto* in the reproductive cells. In other words, the reproductive cells have a direct line of descent, and unless some way can be found of changing the characters of these cells, they can never increase or decrease the number of racial traits. The problem of the inheritance of acquired characters will be studied presently.

Do these variations show any upgrade movements? The meaning of such a movement ought to be made clear at the outstart. By it is meant the appearance or arrival of a new trait or character. The development of an egg-laying strain of chickens is not an

upward movement, it is only a result of Mendelian laws and is absolutely devoid of progress. But let chickens develop from oviparous to placental mode of reproduction, or let dogs evolve wings out of fore legs, or let some tiny specks of slimy mud evolve a method of reproduction, then an upward grade of variation could be granted.

Scientists are calling our attention to the slight variations that do occur, but which are so gradual that the advance from amoeba to man appears to be barely an incline. It would be more in accord with scientific method for them to have us observe the altitude to be attained in this ascent. It takes the same amount of work to raise a pound one foot on the perpendicular as it does to raise it the same height on an incline a mile long. If an incline were built from New York to the top of Pikes Peak an automobile would not coast upward on it. Translating this into biological language, the variation between parent and offspring is barely perceptible; but this difference cannot be one of the innumerable steps upward from amoeba to man, unless there is a dynamic of some kind resident in life to lift itself upward. If such be the case, the amoeba is a potential man, in fact, a vacuum is a potential Jesus. An appreciation of the altitude to be reached may be gotten by reading again the second part of the chapter on "The Meaning of Evolution." There I attempted to describe the progressive march of the amoeba as believed by evolutionists, through its multitudinous stages until man is reached.

Here let me ask: Where and what is the power that first brought matter into existence, that changed the inanimate into the animate, that gave the first

living cell the power to reproduce itself, that changed the mode of existence of a single celled animal into one of many cells; that developed in later animals in order, the sexual method of reproduction among the sponges; a gastrovascular cavity among the jelly fishes and sea anemones; a nervous system and a true body cavity among the unsegmented worms; radial symmetry, anus, tube feet and spiny skeleton among starfishes, sea urchins, sea cucumbers, etc.; bilateral symmetry, a digestive system, a complex circulatory system, "a more concentrated" nervous system, simple sense organs, and a highly developed reproductive system among the earthworms and leeches; a foot, shell, mantle, gill, and nervous system among the fresh water mussels, snails, clams, and oysters; jointed feet and a covering of resistant substance which serves for protection and attachment of muscles among the arthropoda in general, and in detail the complex system of appendages and the unique eye of the crayfishes; the legs of the centipedes and millipedes; the amazing adaptation of the honey bee for securing food and defense; all the variations among a million other species of this great phylum; the spinal column, gills, blood and heart among fishes; lungs among reptiles; wings and the laying of eggs among birds; viviparous reproduction and mammary glands among mammals; the development of intelligence, will, conscience, and religious nature among humans; the origin of the Bible; and the origin of the supreme man, Jesus?

This list could be lengthened almost infinitely, and a similar list of botanical forms could be added,

but sufficient facts are given to show the necessity of the existence of a dynamic of sufficient strength resident in life to produce the upward change. My own investigation leads me to believe that unless this vital power can be located and in some way defined or described, it is scientific to conclude that it is non-existent. I cannot believe a claim that has no evidence for its support. May I remind the reader that the genetic relation of all life forms is not demonstrated, for the gradation of organisms, as well as the other alleged evidences, does not prove such relationship.

II. DOES NATURE HAVE A MEANS OF PRESERVING, REPEATING AND ACCUMULATING VARIATIONS?

But one foundation of evolutionary science remains. A resident force is claimed to inhere in all life forms. Even though the changes are imperceptible, the dynamic must exist if there are any changes.

Darwin held that this dynamic works through various selective agencies. He argued that the variations that occur through artificial selection illustrate in much shorter time what nature does in great epochs of time through what he termed natural selection. He claimed also that another selective agency is to be distinguished, namely, that based on sex in which the female chooses the male for mating. By these Darwin held that nature kills off those that were unfitted for the struggle for existence. But one may well ask, How does he explain the *arrival* of the fittest? This is the crucial question. "All it can do," says Hamilton, "is to foster the favorable variations *after* they

occur, but it cannot *cause* the favorable variation to occur."⁴

This brings us to the crux of our problem: Are "acquired characters" inherited? By an "acquired character" is meant a new trait or quality which a given organism develops in its life history. Animals migrating from a warm to colder climate will adapt themselves to the new conditions. These adaptations may be quite marked. Are these then transmitted to the offspring? I have given in a former chapter⁵ Bateson's verdict against such transmission which represents the latest scientific thought on the question. However, very few geneticists after much experimentation seem to think otherwise. Dr. Michael F. Guyer writes "about certain antenatal effects," that were "secured in rabbits by means of fowl-serum sensitized against rabbit crystalline lens, and of the fact that such induced defects may become heritable."⁶ He states further that the defect has been passed to the eighth generation without any other than the original treatment. He claims that, though the exact mode of inheritance has not been analyzed completely, it has in general, the characteristics of a Mendelian recessive. Guyer is very hopeful, however, and wonders whether "we do not have in the serological mechanism of the body of animals an adequate means for the incitement of the germinal changes, which underlie certain as-

⁴ *Ibid.*, pp. 434, 435.

⁵ Pages 68-70.

⁶ Reading—A Possible Mechanism for the Transmission of Acquired Characters, in Newman's *Readings in Evolution, Genetics and Eugenics*, p. 339.

pects of evolution?" After studying carefully Dr. Guyer's description of the experimentation, I am inclined to think that he has himself raised a fatal objection to his theory. Mendelian laws appear to be in operation here and we know that evolution cannot arise through them. Guyer's confidence is further expressed in the statement, "If we may have germinally destructive constituents engendered in the blood, there is no valid reason for supposing that we may not also have constructive ones."⁷ Is not the term "destructive constituents" a misnomer? *Is he not postulating the presence of a power, for which he can deduce no evidence?* If "constructive ones" exist, then the amoeba has in it the potentiality of man. Finally one must question seriously the validity of such experimentation conducted under such unnatural circumstances. It is safer to conduct investigations when the course of nature is not thus interfered with.

In further confirmation of Bateson's statements concerning the inheritance of acquired characters, I shall add the testimony of other scientists, all of whom, it will be observed, are evolutionists. In the case of some the strategic place of this locus in the whole question is appreciated, but they rest their belief on the evidences for evolution which they consider adequate.

Professor Ganong, in his Botany for colleges,⁸ gives the following statements:

⁷ *Ibid.*, p. 344.

⁸ Pages 314, 315.

"The origin of variation is the great crucial problem of present-day Biology, though it will be settled, and before long, by the experiments now in progress." This is not inspired prophecy and I do not know how elastic the expression, "before long" is understood to be. Concerning the changes that body cells are supposed to register in the germ cells, he says: "Now of such a result there is not only no known evidence, but such evidence as we possess seems wholly against its occurrence."

In criticism of variations that exist or that date from birth, called congenital variations, Professor Lull says, "We know no means whereby the character of the surrounding medium can make itself felt upon the germ-cell itself (which has been shown to be the physical basis of heredity), so thoroughly is the latter apparently insulated from all outside influences."⁹

At the close of his chapter on the "Inheritance of Acquired Characters," Lull presents Kellogg's summary of the present status of the problem, a concluding sentence of which is: "One cannot help feeling, however, that after a great many repetitions an ontogenetic adaptation may finally impress itself upon the race, although the means whereby this may be accomplished is unknown to us." It seems to the author that Professor Lull ought to see the crucial importance of this weakness to the entire argument. He rests securely, however, in the validity of the evidences, which are presented in his work, but which we have found to be inadequate.

Turning to Parker and Haswell's "Text-Book of

⁹ *Op. cit.*, p. 140.

Zoology," I find in the chapter, "The Philosophy of Zoology," in a discussion concerning an influence transmitted from the body cells to the germ cells that it "has not been proved, and from the nature of the case, perhaps cannot be directly proved. Such an influence, it is hardly necessary to add, must be presupposed if we assent to the doctrine of the inheritance of acquired characters."¹⁰

Possibly no field of investigation is being worked so extensively as that of genetics and heredity, and here is where we must find the power that has raised the void to Jesus, if it is to be found. A profound silence prevails, and one by one scientists are taking refuge in a theory of "orthogenesis", which removes the investigation from the realm of objective science to that of fancy. Lull defines the theory thus: "Orthogenesis is the theory that variations, and hence evolutionary changes occur along certain definite lines impelled by laws of which we know not the cause."¹¹ Matters of fancy need no refutation.

Hence we conclude that objective science shows that variations do occur within well-defined limits. But acquired characters are not transmitted. No mechanism can be found for evolution. We must seek elsewhere for an adequate power that originated matter, created life, differentiated it into species, formed man and incarnated God. This answer is found in the Book of books.

With this chapter the scientific study of evolution is brought to a close. For this reason a résumé

¹⁰ Page 644.

¹¹ *Op. cit.*, p. 175.

of the argument thus far pursued is in order. We started with Le Conte's definition of evolution, and expanded it according to the modern understanding of the process. Scientific proof of evolution involves the solution of the great problem of origins—of matter, life, species, and man. Science cannot account for the origin of matter and life. Some, plunging into wild speculation, assert that life arose spontaneously. Many evidences are alleged to prove the fact of evolution. When examined, however, they prove to be evidences against this theory. A notable case of begging the question is discovered. It is as follows: Biologists admit that in the last analysis final proof of evolution must be sought for in geology. When geologists are questioned for ultimate proof of their theories, they ground themselves in conclusions drawn from biology. Such wholesale reasoning in a circle is the most glaring blunder of evolutionary science. As a result the alleged evidences are found wanting. Particular attention is paid to the origin of man in which it is found that the physical, mental, religious—in a word—the personal attributes of human beings, have no genetic relationship with the brute realm. The Christian Religion, recognized as the only true religion of the world, when scrutinized as to its origin, is found to be, not a product of men, but a revelation from and of God. Jesus Christ is God incarnate, and not the product of evolution. The search for the power that has wrought so-called evolution likewise proves futile. Evolution collapses as a scientific theory. Is its status in Philosophy any better?

Chapter VIII

THE PHILOSOPHY OF EVOLUTION

Having found that the theory of evolution lacks scientific foundation, I now come to inquire as to its standing in the domain of philosophy. In science the test has been, "Is it in accord with observed facts?" But philosophy inquires, "Does it satisfy the heart?" This difference of method calls for explanation.

What is meant by this expression, "the heart"? Answered briefly, it is one's general world attitude or viewpoint. It constitutes the result attained of one's entire thinking. The human mind naturally craves to unify reality in all of its diverse forms, and that which harmonizes with this unity satisfies the heart. Some reasoners, after scrutinizing all things, come to the conclusion that the universe is God and God is the universe, and this conclusion is reflected in all their thinking. Others come to the generalization that everything can be reduced to terms of matter and force, and all their thinking is colored by this viewpoint. Another group distinguish a dualism of God and His Creation. Other general world viewpoints may be distinguished, but these serve to illustrate my point.

The method of reasoning in philosophy differs from that in science. In the mathematical statement, $2 \times 2 = 4$, no one can gainsay the result. It compels assent of the mind. To a great extent the thinking

done in biological science partakes of this form. Because observation shows that life comes from life and no exceptions appear, one can assert that all life comes from life with the same degree of certainty as one can that $2 \times 2 = 4$. On the other hand, I might urge a person to believe that there is a God because I see the operation of His laws in the world, but I cannot compel him to accept my conclusion. It satisfies my heart to believe in His existence on this and other grounds, but it may not satisfy another's heart. This being the case, can any certainty be attained in any philosophical reasoning? I am thoroughly convinced that certainty can be attained, because, as will be seen later, if one's heart is in tune with the universe, no other conclusion will satisfy. In other words, if a person holds a wrong philosophical position, it can be shown that he has not unified the whole universe, he is shutting himself up against some great reality, or denying some vital relationship between realities.

Philosophic reasoning gains its weight through the cumulative force of the arguments presented. Taken singly the arguments may not satisfy one to establish a point, but united they form an impregnable bulwark against assault. I shall illustrate this method of reasoning in the presentation of the theistic proofs. I am now interested in the validity of this mode of argument, but presently I desire to use the conclusion attained.

I. PHILOSOPHIC REASONING, ILLUSTRATED IN THE PROOFS OF THE DIVINE EXISTENCE

1. There is a universal belief in God, and among all mankind there exists a universal religious

instinct. How can this belief have originated without some foundation in fact? Is it not reasonable to believe that a God does exist because there is a universal belief in such existence. As Dr. L. S. Keyser puts it: "Could a God-idea evolve of its own accord out of a no-God ground or basis? Can water rise higher than its source? If there is nothing in existence but material substance, and if material substance has falsely led almost all people to believe in God, then material substance must be a universal falsifier, not to be trusted in any case."¹

2. The argument from the law of causality. Every effect must have an adequate cause. The universe is here; it cannot be eternal or it would be absolute. Rather, it shows the imprints of a First Cause; it is not a chaos, it is a cosmos. Is it not reasonable to believe that the universe had an adequate cause which brought it into existence? Does not this orderly universe lead one to believe that the first cause had intelligence?

3. The world shows evidences of design, purpose, and adaptation. The highly specialized organs of sight, hearing, smell, taste, touch, digestion, circulation, reproduction, etc., all show effects that could not have arisen fortuitously. Is it not reasonable to believe that there is a supreme Designer in the world? We have found that life as we know it furnishes neither mechanism nor intelligence capable of producing the innumerable examples of intricate adaptation as seen in specialized organs. Do not these facts lead us to believe that the Designer has intelligence? Let it

¹ *A System of Christian Evidence*, p. 186.

be observed that intelligence is a predicate of personality, and that there is no known existence that has intelligence except personal existence.

4. The moral argument. There is in mankind a universal capacity for distinguishing between things right and things wrong. Fundamental to man's nature is this moral faculty, and further, man lives in a moral world. On every side he finds his moral nature articulating with a moral order. How did this ethical intuition or moral sense and moral order originate? It certainly does not satisfy one to think that they arose out of a non-moral existence. Is it not reasonable to believe that the origin of these is to be found in a Moral First Cause? Again, let us observe that morality can be predicated only of rational personalities.

Hence we conclude from this four-fold argument that the universe has had an adequate cause. Of this cause must be predicated rational intelligence and morality. The existence of a supreme personal being with rational intelligence and a moral nature alone satisfies these arguments.

Now let us examine this mode of reasoning. Its cumulative force is self-evident. It constitutes a line of thinking that cannot be lightly cast aside. Indeed, it seems to the author that the belief in the existence of a personal God based upon these and other arguments is more certain than the mathematical reasoning that $2 \times 2 = 4$. It is to be observed, in the second place, that this mode of reasoning has in it certain intuitive elements. I believe that it is impossible to avoid the conclusion that the intuition is a real and valid source of knowledge. I am not giving room here to all sorts of mystical notions concerning intuitive knowledge,

but this much I do hold to: those truths pertaining to the existence of God, my own moral nature, and my need of a Saviour are intuitive; albeit, not solely so.

The reader may wonder what this excursus has to do with the subject of evolution. Briefly it is this: I am seeking for a sure footing in the domain of philosophy, one that satisfies the heart; for throughout my discussion of the scientific basis of evolution, I relegated to the field of philosophy certain vital problems that scientists were discussing as *science*. They must now be disposed of. I have tried to show that sound philosophic reasoning is valid, and I have illustrated the mode in the most crucial of problems of inquiry, namely, the problem of the existence of God. The mode of reasoning satisfies. Let me now use the content of this theistic argument. It leads us to a fundamental view of the universe. It is none other than the theistic and Christian view of God and the Universe. This world-viewpoint satisfies my heart.

II. THE THEISTIC AND CHRISTIAN VIEW OF GOD AND THE WORLD

From that classic on the subject, Dr. James Orr's work, "The Christian View of God and the World," I gather nine points which define this viewpoint.² To each one of these there is one or more alternatives which are found to be unsatisfactory to the heart.

1. "The Christian view affirms the existence of a Personal, Ethical, Self-Revealing God. It is thus at the outset a system of Theism, and as such is opposed

² Pages 32, 33.

to all systems of Atheism, Agnosticism, Pantheism, or mere Deism.

2. "The Christian view affirms the creation of the world by God, His immanent presence in it, His transcendence over it, and His holy and wise government of it for moral ends.

3. "The Christian view affirms the spiritual nature and dignity of man—his creation in the Divine image, and destination to bear the likeness of God in a perfected relation of sonship.

4. "The Christian view affirms the fact of the sin and disorder of the world, not as something belonging to the Divine idea of it, and inhering in it by necessity, but as something which has entered it by the voluntary turning aside of man from his allegiance to his Creator, and from the path of his normal development. . . .

5. "The Christian view affirms the historical Self-Revelation of God to the patriarchs and in the line of Israel, and, as brought to light by this, a gracious purpose of God for the salvation of the world, centering in Jesus Christ, His Son, and the new Head of humanity.

6. "The Christian view affirms that Jesus Christ was not mere man, but the eternal Son of God—a truly Divine Person—who in the fulness of time took upon Him our humanity, and who, on the ground that in Him as man there dwells the fulness of the Godhead bodily, is to be honored, worshipped, and trusted, even as God is. . . .

7. "The Christian view affirms the Redemption of the world through a great act of atonement—this atonement to be appropriated by faith, and availing

for all who do not wilfully withstand and reject its grace.

8. "The Christian view affirms that the historical aim of Christ's work was the founding of a Kingdom of God on earth, which includes not only the spiritual salvation of individuals, but a new order of society, the result of the action of the spiritual forces set in motion through Christ.

9. "Finally, the Christian view affirms that history has a goal, and that the present order of things will be terminated by the appearance of the Son of Man for judgment, the resurrection of the dead, and the final separation of righteous and wicked,—final, so far as the Scriptures afford any light, or entitle us to hold out any hope. Beyond this are the eternal ages. . . ."

It is at once seen that these nine points have their basis in the valid conclusions drawn from the theistic arguments presented before. If we grant the existence of a personal, ethical God who is the First Cause—the truth gained from natural theism—is it not reasonable to believe that He would be able to reveal Himself to His personal creation? Wouldn't we even expect that a revelation would be given? It is almost unthinkable that a personal God would remain eternally silent and have no communication with man.

Now there is in existence a Book which claims to be this revelation, and we have shown in an earlier chapter that this Book is not a human product. By innumerable evidences of miracle, prophecy, nature of teaching, power and influence in the world, etc., we are led to conclude that the Book must be what it claims to be. If this be granted, the other eight points

quoted from Orr follow naturally because they are taught in this divine revelation.

I believe firmly that these nine points ground us upon an immovable philosophical foundation. Historically, it is the oldest, and has found the most general acceptance. Examined critically, it satisfies the deepest longings of the heart. It answers all the profound questions that stir the soul. All other foundations seem to be sinking sand. I have found sweet rest, perfect composure and complete satisfaction in this position for many years.

Does the theory of evolution rest upon this foundation? I shall examine first its ontological basis.

III. THE ONTOLOGICAL PROBLEMS

1. *Being or Becoming?* This is the metaphysical problem *par excellence*, and represents two totally diverse viewpoints of life. The Christian view holds to the former. It grants that changes occur in the world, but there is persistence of being. I exist, I have existed for more than thirty years, I shall exist eternally. Ten thousand millenniums from now I shall be the same person I was when I came into existence. God is the same yesterday, to-day, and for ever. All life forms reproduce according to their kind. This philosophic position satisfies the heart.

On the other hand, the theory of evolution finds its philosophical foundation in the doctrine of becoming. Let us recall at this place part of Le Conte's definition, "Evolution is continuous, progressive change." It is at once apparent that evolutionists are harking back to Heraclitus' philosophy of universal change as opposed to the Eleatic philosophers who argued for

persistence of being. The historians of evolution link up their theory with such ancient advocates of change as Anaximander, Anaximenes, Heraclitus, Pythagoras, and Empedocles. Concerning the first, Newman says, "He saw vaguely the idea of transformation of aquatic species into terrestrial."³ "Anaximenes also introduced," says the same author, "the idea of abiogenesis (spontaneous generation of living substance), his idea being that animals and plants arose out of a primordial terrestrial slime wakened into life by the sun's heat."⁴

Does the modern statement of Ward, given in an earlier chapter,⁵ differ essentially from this? Heraclitus was the great proponent of the philosophy of change, and as Newman says, "He was imbued with the idea that all was motion, that nothing was fixed."⁶ Lull says that Empedocles may be called the father of evolution. Democritus taught the adaptations of single structures and organs to certain purposes.

But this view of things does not satisfy the heart. In addition to being contrary to our experience and unsatisfactory to the heart, it is anti-theistic. It calls for resident forces in nature which can be explained only upon a pantheistic or mechanical basis. A thoroughgoing theism alone satisfies the mind.

2. *Dualism or Monism?* The second ontological problem concerns the analysis of existence. Can all things be reduced to matter, or all to mind; or does

³ *Readings in Evolution, Genetics, and Eugenics*, p. 11.

⁴ *Ibid.*, p. 12.

⁵ III, p. 20.

⁶ *Ibid.*, p. 12.

the universe present a dualism of God and creation, mind and matter, spiritual and material substance? In addition to being an ontological problem, the position taken has vital relations to psychology, ethics and religion. I shall here confine myself to its ontological aspects. In order to get the issues before us, I shall quote at length from Haeckel, the leading philosopher among evolutionists: "The mind, or 'psyche,' of man has developed together with and as the function of the medullary tube, and just as even now the brain and spinal marrow develop in each human individual from the simple medullary tube, so the human 'mind', or the mental capacity of the entire human race, has developed gradually, step by step, from the mind of lower vertebrates."

"The dualistic view is at least as irreconcilably opposed to Ontogeny as to Phylogeny. If we agree with the majority of men, that the mind is a self-existent, independent being, which has originally nothing to do with the body, but only dwells in it for a time, and which gives expression to its emotions through the brain . . . then we must suppose a period in the human germ history at which the mind enters the body, enters the brain; and we must also suppose a moment at death at which it leaves the body. . . . This dualistic view entirely fails to explain the phenomena of evolution. . . .

"Comparative Psychology, however, teaches that this frontier-post (reason) between man and beast is altogether untenable." He describes his monistic or mechanical philosophy thus: "This mechanical or monistic philosophy asserts that everywhere the phenomena of human life, as well as those of nature, are

under the control of fixed and unalterable laws; that there is everywhere a necessary causal connection between phenomena, and that, accordingly, the whole knowable universe forms one undivided whole, a 'monon'. It further asserts that all phenomena are produced by mechanical causes, not by pre-arranged, purposive causes. Hence there is no such thing as 'free-will' in the usual sense."⁷

From this it is obvious that the great battle wages around these questions: Is there such a thing as spiritual reality? Since we cannot see spirit existence, but see only matter, might not our notion of spirit existence be only an illusion? Does the heart give its assent to such a conclusion? Let us enter the innermost recesses of our thinking and consider calmly this vital problem.

Does not materialism crush out all belief in God? Does it not put a veto on the very belief of personal existence? Does not the notion of personality vanish as a phantom if everything is matter? Have we fathomed the nature of our existence if we are content to resolve everything into material substance? I appeal to the testimony of my Christian experience and the similar experience of thousands of other Christians, that the words given in Rom. 8:16 point to a real communication between spiritual beings, "The Spirit Himself beareth witness with our spirit that we are children of God." Let me insist; I have experienced this, and no one has a right to deny its reality. I cannot throw away an experimental religion for a barren and shallow materialistic monism.

⁷ *Evolution of Man*, pp. 451 ff. •

But it must be observed that the theory of evolution is avowedly materialistic. Matter is held to have been eternally in existence and to possess some magical power to evolve into life and thence into higher forms of life and finally to human personality. I must be frank with the evolutionist. He has not fathomed the depths of human personality.

There is another serious count against Materialism. If matter is eternal, it is infinite and it follows that the materialist thereby becomes a pantheist. Our inmost being revolts against pantheism. Pantheism and theism are mutually exclusive. If one meditates upon the issues involved and studies again the well-founded proofs for the personal existence of God, he will see how repugnant any anti-theistic system is to sound philosophy.

I pass on to the second department of metaphysics, cosmology. Whence came the world? If the world reveals purpose, what can be said as to the being and nature of the one who ordained purpose in the world?

IV. WHENCE CAME THE UNIVERSE?

Two answers have been given to this question: (1) the mechanical, and (2) the teleological. Advocates of the former are content to see laws in operation in the world, but are afraid to give vent to their inmost longings concerning the ultimate origin of things. At this point a stern protest must be raised. By thus ignoring this pertinent inquiry, the heart is left unsatisfied. Those who hold this view do so on two different grounds and thus classify themselves into at least two schools of thought. One of these, Ag-

nosticism, says, "I do not know whether the universe is eternal or has come into existence by natural laws." I cannot but think that the agnostic is afraid to trust his better sense. A feeling of self esteem little short of pride, compels him to take refuge in such a position. True, indeed, no theist claims to know everything concerning God and His nature; but the crucial question is, "Do we know anything about God?" Again, I ask him to reflect upon the theistic proofs presented above. Can one turn away from those great inquiries pertaining to the universal belief in God, the necessary First Cause of the universe, the Designer of this universe, the Originator of man, and his moral nature and religious capacity, and say that nothing can be known of God, that we cannot be certain whether there is a God? May I ask such men to be honest with themselves? May I plead with them to listen to the voice of God in their soul, which tells them that they are sinners and in need of a personal Savior? May I ask them to consider the following words from a great Book? "For the wrath of God is revealed from heaven against all ungodliness and unrighteousness of men, who hinder the truth in unrighteousness; because that which is known of God is manifest in them; for God manifested it unto them. *For the invisible things of him since the creation of the world are clearly seen, being perceived through the things that are made, even his everlasting power and divinity.*"⁸

The atheist is definite in his assertion that there is no God, and of course he must hold either to the

⁸ Rom. 1:19, 20. A. R. V.

eternity of the universe or else to its mechanical origin. But has the atheist forgotten his metaphysics? If the universe is eternal, it is infinite; even an atheist cannot escape pantheism if he holds to this view. If he holds to its mechanistic origin, let me ask in all sincerity, Can a world of order come out of chaos without a mind to direct it? Let the atheist be honest.

A large group of evolutionists resort either to the agnostic or to the atheistic explanation of the world, but no system of mechanism satisfies. We continually wonder who originated the mechanism. We must accept some form of teleology as an explanation of the universe. Which form is consistent with theistic belief? Polytheism no longer contends for a place among enlightened peoples. Two other positions still hold attention which need examination. An outworn belief is Deism. It is held by such who cannot escape the dictum of their inmost being that a personal God has brought the universe into existence. But this group is unwilling to grant that the Creator can and does operate in His creation. In addition to the evidences for God's activity in the world, let me urge that if we grant that the universe has been created by a personal God, it is reasonable to believe that this God would not be eternally silent or inactive.

A very large group of evolutionists hold to a practical pantheism. The universe is eternally existent. Every atom or electron has in it vitality and is the physical basis for life in all of its manifestations. Life is resolved into physical or chemical action. In some mysterious way life came into existence, and life has become differentiated by forces inherent in matter.

Against such belief several telling arguments must be urged. To the extent in which it partakes of monism it is refuted by the discussion given above. How can a pan-God be a person who hears and answers prayer? Our religious life must evaporate if the God we worship is not a person, and personal immortality becomes a myth. But one has clear vision if he is able to distinguish between God and His creation. Certainly God is immanent in the universe, but let us observe that the reasons are just as cogent for believing in His transcendence. Deists err in that they cannot believe in the former, while pantheists reject the truth held by Deists.

The only consistent explanation of the cosmos is a theism which is thoroughgoing. Christian theism believes in both the immanence and the transcendence of God. God created the world, He operates in the world, He transcends the world. In this position our souls rest composed. In the concluding chapter I shall enlarge on this view.

I dare not leave the discussion of theism without recognizing the arch-objection to its truth. A thoroughgoing theism involves belief in the supernatural and miracle. Unbelief in these is based upon two chief arguments. In the first place, naturalists urge that we do not observe in nature any supernatural activity, and secondly, the supernatural is contrary to established laws and hence is impossible. As one who believes in the supernatural, I desire to state that this belief is not mere credulity, blindly adhered to as a religious tenet. Belief in the supernatural finds its support first of all in the sure foundation of theism;

secondly, in a historical record of its operation; and thirdly, in a sufficient reason for its occurrence.

As to the first, if we believe that the universe has had its origin in the fiat of an omnipotent God, and if this God is the author of laws, is it not reasonable to believe that this God could infuse a new law temporarily if He so willed it? It is puerile to object that such a God could not do so without capsizing His universe. Again, if we believe that human personality is the image of the divine, is it not reasonable that God would communicate with mankind by some intelligible means? How could a communication be intelligible as from God except through some new law temporarily operative in the universe? Still further, a need has arisen for such communication in that the human creation has sinned against God.

In the second place, the actual occurrence of supernatural acts is fully attested by authentic historical records. I have scrutinized most carefully the canons of historical criticism, have applied them most rigorously to certain documents which purport to give a record of miraculous acts, and have come to the conclusion that if any event of world history is capable of historical proof, the miracles recorded in these documents have the strongest historical support. The documents I refer to constitute the Bible, and the miracles are the great acts of the Eternal God's self-revelation and redemption recorded therein. A very brief presentation of the historical proof has been given in the chapter entitled "The Historic Origin of the Christian Religion." It is worth while to observe that outside of Biblical history there are isolated claims

for miracles, but these vanish when subjected to these same historical canons.⁹

In the third place, sufficient reasons are found for the occurrence of miracles. Two have already been suggested. Granting the existence of a God such as theists claim, how could He reveal Himself intelligibly without transcending in some way established laws? It is difficult to conceive of a personal God withholding communication from His personal creation. Further, in the sin of our first parents a need has arisen for a communication. The miracles of the Bible have their occasion in the gracious redemptive plan of God. Their occasion is the farthest removed from any notion of fickle display on the part of God. Nor could the human mind have invented stories of miracles and clothed them with such circumstances. In other words, the vital relation subsisting between miracles and God's redemptive plan is proof that the miracles actually took place. I have already enlarged to some extent on this point in the closing section of Chapter VI.¹⁰

V. DOES MAN HAVE A MIND?

One of the most recent psychological developments is the behaviouristic psychology. It is the logical application of evolution to this noble science. Since man has evolved from the brute, it is necessary to think of man's mind as being closely akin to that of

⁹ See Dr. B. B. Warfield's work, *Counterfeit Miracles*, for a full discussion of this point.

¹⁰ See the article on "Miracle" in Davis' *Dictionary of the Bible* for a brief but fundamental discussion of the purpose of miracles.

the brute. So the experimental psychologists have dissected the brain in order to find the soul. Not being able to locate it, the existence of it is denied. Accordingly, behaviouristic psychology asks us to forget all about the ego and to examine only the activity, the behaviour, of man.

Such a position is revolting to the heart. We are aware of an abiding consciousness. To deny this is to deny human personality. This psychology smacks of materialism in that it is afraid to acknowledge the reality of spiritual existence.

VI. POSITIVISM

The noted French philosopher, Auguste Comte, held to certain views which have since been ardently accepted by certain evolutionists, and on this account calls for notice. This philosopher maintained that the human mind successively passes through three stages of thinking or philosophizing: the theological stage, which is elementary and represents the period of childhood, the metaphysical stage, and the positive stage.

"From the theological or anthropomorphic point of view, cosmical phenomena are governed, not by immutable laws, but by wills like ours. This primitive form of thought has three stages. First, the objects themselves are regarded as animated, living, intelligent (fetichism). In the next stage, invisible beings are imagined, each of them governing a certain group of objects or events (polytheism). In a higher form, at last, all of these particular divinities are merged into the conception of one God, who created

the world and now governs it either directly or through the medium of supernatural agents of the second order (monotheism).

"Metaphysical thought no longer explains phenomena by conscious wills, but by abstractions considered as real beings. Nature is no longer governed by an anthropomorphous God, but by a force, a power, a principle. . . . We pretend to explain facts by the tendencies of nature, . . . The metaphysical view errs in that it takes abstractions for realities."¹¹

The *positive* explanation of facts gradually supersedes the theological and the metaphysical explanations. Unhampered by the phantoms of the former stages the individual is at last in position to give a *positive* explanation of facts. Only phenomena are studied because the real essence of things cannot be ascertained.

Evolutionary scientists take to positivism because it relieves them of answering some very embarrassing questions. When one asks, "Whence came the universe? Whence came life? Whence came species?" he is politely informed that this is not the domain of positive science and so these questions are held to be irrelevant to the subject of evolution. A typical example is found in Conklin's "The Direction of Human Evolution," page 210: "It (evolution) neither affirms nor denies the existence of a God; it deals only with processes and does not profess to touch the question of ultimate causation." They who press such questions are still hampered by the outworn meta-

¹¹ *History of Philosophy*, by Weber with *Philosophy Since 1860*, by Perry, p. 493.

physical speculations. When one finds a lofty explanation of these questions in the fiat of an infinite omnipotent God, he is humiliated by the taunt and sneer that he is still grovelling in the elementary and crude theological stage of development. Spiritual realities are denied because they cannot be classed as phenomena.

I refuse to be classified into Comte's categories. His entire system of thinking is shot through with a most pernicious philosophy, and in so far as evolutionary thinking grounds itself in this system, it is refuted by the fallacies of its philosophy.

First, Comte's categories of three stages are entirely repudiated by facts. It moves on the assumption that the evolutionary view of the origin and history of religion is true. In Chapters V and VI this view of religion was found to have no basis in science.

Second, a fairer estimate of thinkers will not relegate believers of God and metaphysics to a level of a childish mental calibre.

Third, the human heart cannot be satisfied to give up its search for the origin of things. Intuitively these questions are asked. A satisfying solution is demanded. The theistic position alone solves these problems to the heart's satisfaction.

Fourth, in its denial of spiritual reality, positivism proves itself puerile and onesided, entirely unworthy of being the foundation for a world view. Possibly no system is as anti-Christian as this. In its exaltation of what is called positive science, it ignores realities whose existence are more certain than those known through the five senses.

VII. WHENCE ARE THE STANDARDS OF THE NORMATIVE SCIENCES?

Logic, Aesthetics, and Ethics compose the normative sciences. They are normative because they inquire as to the nature of that which should be, they deal with a norm or standard of being which serves as an ideal according to which the phenomena in these several spheres are judged. I am concerned here chiefly with Ethics because it is in this department that the theory of evolution has had the most vital relation.

Herbert Spencer, an agnostic, applied the theory of evolution to Ethics and developed a utilitarian scheme of morality. I quote Dr. L. S. Keyser's statement of its cardinal principle: "In the evolution of the human race, some kinds of conduct were found to be beneficial to the social organism, perhaps the primitive tribe, and these in course of time came to be called *right*; while other kinds of conduct were found to be harmful, and they have come to be called *wrong*. Thus the terms *right* and *wrong* are identified with the *useful* and the *harmful*. Nothing is either right or wrong *per se*".¹² In addition to the refutation of this view already given in sections 4 and 5 of chapter VI, let me urge the following:

1. The world is beginning to reap the baleful results of such an ethical system, which fact itself refutes this philosophy as the true source of right. What agency can restrain the wickedness of mankind if we deny the existence of an external law-giver, God, who speaks to the individual through the conscience and

¹² *A Manual of Christian Ethics*, p. 45.

has established the immutable law of right in His written Word?

2. In the foregoing chapters it has been found that the moral nature of man is fundamental to man, and is not an accretion added through stages of development. Spencer never verified his scheme in the researches of science.

3. It does not satisfy the heart to believe that my moral nature has its origin in such a method of utility. As I look back to certain evil acts of my life, a feeling of remorse comes over me for having committed such deeds. Utility cannot produce remorse, guilt or shame. A conscience which smites one with these emotions is the spokesman of God. This conscience and this voice are real things, because they form a part of one's experience.

4. This theory denies the free moral agency of man. Since man is reduced to an animal, all of his acts are decided by the law of determination. Belief in free moral agency does not deny or minimize the effects of heredity and environment upon individuals; but to assert that all of men's acts are determined is to deny to mankind the distinguishing mark of personality. The existence of the emotion of remorse is in itself a final refutation of determination. "Oh, if I had not done such and such an act, but I did." This is the assertion of a personality which feels responsible for what it has done. If this is not true, then all criminals and lawbreakers are to be pitied rather than punished; they happened to be a link in a chain of circumstances that compelled them to commit deeds of lawlessness. Let us abolish all laws, regulations and re-

strictions then, because we have overrated mankind with a power to will and to control his desires.

Such is the philosophy of evolution as applied to man's fundamental nature. Does it satisfy the heart? Having found evolution unscientific, and lacking a sound philosophical basis, I shall now examine its religion. This is the holy of holies of man's constitution. Does the theory of evolution sanctify this holy place or defile it?

Chapter IX

THE RELIGION OF EVOLUTION

I. A MAN-CENTERED RELIGION

Auguste Comte, the father of positivism, held that mankind is the proper object of worship, and is the key to the understanding of the world. This gives in a nutshell the religion of evolution. Le Conte in his book "Evolution and Religious Thought," perceives clearly the alternative when he writes, "The issue is: Either God is far more closely related with Nature, and operates it in a more direct way than we have recently been accustomed to think, or else (mark the alternative) Nature operates itself and needs no God at all." We found in the previous chapter that most evolutionists are avowedly agnostic, pantheistic or atheistic, each position of which denies the close relation and direct operation of God in the World.

We need not look far to find many evidences of this man-centered religion. In *Sociology* I read how man has lifted himself above his fellow-animals to the pinnacle of being their master. History continues the story of advancement by glorifying all the achievements of man. The preface of one work labels American History as the "History of the Achievement of Mankind." The words progress, development, advancement, growth, improvement, accomplishment,

etc., predominate as descriptive of man's status in the world.

Another index of this man-centered religion is found in the ethical rating that man places upon himself. Preachers, educators and statesmen are frequently heard giving their praises of mankind. They tell us that we are not so sinful as some would have us believe. There is a great deal of good in all of us. Crime is condoned by calling it a vestige of our brute nature which will soon be lopped off by further processes of evolution. The modern trend is to abolish the distinction between right and wrong, good and bad, holy and unholy, and to substitute in their place a weaker or even non-moral terminology, such as beneficial and detrimental, advantageous and disadvantageous, etc. Such obliteration of distinctions leaves man untrammelled by moral hedges, and gives him absolute license to do all that is conducive to happiness and sensual joy. Why should there be anything to restrict the king of beasts and the lord of brutes? Do I not hear the proud swagger of such a king: "Is not this great Babylon which I have built"—just before the Lord demonstrated for the instruction of the vain of all times that the mightiest of earth are still only the finite creatures of the Omnipotent. Do I not hear again Nebuchadnezzar's herald crying: "To you it is commanded, O peoples, nations and languages, that at what time ye hear the sound of the cornet, flute, harp, sackbut, psaltery, dulcimer, and all kinds of music, ye fall down and worship the golden image that Nebuchadnezzar, the king, hath set up?"¹ How

¹ Daniel 3:4, 5.

many will keep their allegiance to the living God as did the three Hebrew captives?

II. HOW SHALL WE TEST THE ADEQUACY OF A RELIGION?

1. Does It Satisfy Every Human Need?

The first test that may be made is this: Does it satisfy every human need?

Dr. Joseph Cook, in a famous address entitled "Strategic Certainties of Comparative Religion," given at the World's Parliament of Religion held in Chicago in 1893, made this clear before that great assembly. Said that great preacher and orator: "I hold that it is a certainty, and a certainty founded on truth absolutely self-evident, that there are three things from which I can never escape: my conscience, my God, and my record of sin in an irreversible past. How am I to be harmonized with that unescapable environment? Such harmonization is the condition of my place.

"Here is Lady Macbeth;

'See how she rubs her hands.

Out, damned spot! Will these hands ne'er
be clean?

All the perfumes of Arabia could not sweet-
en this little hand.'

"And her husband in a similar mood says:

'This red, right hand, it would

The multitudinous seas incarnadine,
Making the green one, red.'

"What religion can wash Lady Macbeth's right hand? That is a question I propose to the four continents and all the isles of the sea. . . .

"I take Lady Macbeth on my right arm and her husband on my left and we three walk down here to the benches of the skeptics of our time who are not represented in this Parliament. Anti-Christian literature in our day is usually half-chaff and half-chaffing. But I put to infidels the question: 'Can you wash our red, right hands?' All that skepticism or average liberalism says, or has ever said, in answer to this supreme inquiry is as insufficient to meet man's deepest spiritual necessities as a fishing rod would be to bridge this great lake or the Atlantic.

"I turn to Mohammedanism. Can you wash our red, right hands? I turn to Confucianism and Buddhism and Brahmanism. Can you wash our red, right hands? So help me God, I mean to ask a question this afternoon that shall go in some hearts across the seas and to the antipodes, and I ask it in the name of what I hold to be an absolutely self-evident truth that unless a man is washed from the love of sin and the guilt of sin, he cannot be at peace in the presence of Infinite Holiness."

To this modern religion of evolution the same interrogation is directed. Are you able to wash away Lady Macbeth's bloody stains? That smitten conscience guilty of foul murder is an example of man's deepest need. Christianity alone has power to heal Lady Macbeth's strange malady. No other religion, ancient or modern, can save from sin, transform men's lives, give peace and comfort, and plant a sure hope of eternal life—in a word, meet man's every need.

This leads me to the second and final test.

2. Is the Religion of Evolution in Harmony with Revealed Religion? What Issues are Involved?

Emphatically we must say that it is not. Let me state briefly the issues involved. The reader is allowed to judge for himself as to the merits of the case.

(1) *It involves the truth of Christian Evidences.* I have in an earlier chapter touched on these briefly. The reader is referred to the many excellent works, such as Orr's, "The Christian View of God and the World," Fisher's, "The Grounds of Theistic and Christian Belief," and the Manuals of Keyser, Mullins, etc., for adequate presentations of this subject.

First, there is the gigantic historical evidence embodied in the Biblical records themselves, the Biblical manuscripts and versions, writings of Church Fathers, references to Biblical history in secular history—all of which constitute a colossal argument in proof that the Bible as we have it to-day is identical with that which was written by the inspired penmen.

Second, there are the archaeological evidences which confirm the history and doctrines of the Bible at innumerable points. Not a single item of archaeological discovery casts a shadow over any Biblical statement. Archaeology alone confirms the major part of Biblical history independently of the Biblical records.

A third external evidence is found in the salutary influence of Christianity upon the world. Men's lives have been transformed. "The best civilization," remarks Dr. L. S. Keyser, "goes with the Bible, and the more heartily it is accepted, the more benign is its

influence. In these recent years cannibal nations have become civilized through the power of the gospel."²

A fourth external evidence is found in Christian experience. "By Christian experience," says Dr. Keyser, "is meant *the inner witness vouchsafed to the penitent and inquiring sinner by the Holy Spirit, through the teaching of the Scriptures, assuring him of truth, pardon and salvation through Jesus Christ.*"³ This evidence is valid, and one who has not experienced it is not in position to deny its reality. A blind man is not capable of denying the beauty of a mountain scene, because he has not had the sensuous experience of seeing it. In the same manner an experience which is common to millions of believers made up of honest and intelligent people cannot be denied by those devoid of this experience. If the reader is inclined to doubt these statements, let him with open mind read Harold Begbie's "Twice Born Men;" let him read the biographies of the Apostle Paul, Justin Martyr, Augustine, John Bunyan, Rowland Hill, John Newton, Charles Spurgeon, Dwight L. Moody, Jerry McAuley, R. A. Torrey; let him observe the changed lives of thousands of other common Christian folk who are a real salt to the earth.

Turning to internal evidences, let me observe the historical character of all Biblical records. In so far as secular history and archæology shed light upon the Biblical events, perfect confirmation of Biblical statements is found. The reader of the Bible is impressed at once with the fact that he is reading authentic his-

² *A System of Christian Evidence*, p. 141.

³ *Ibid.*, p. 130.

tory, not folklores, fiction or fancy. It is not necessary to unravel a maize of contradictions, or to sift out truth from untruth in a chaos of tradition, folklore, mythology, animism, etc. It is all a simple, clear and ethical narrative imbued with a pure monotheism and written by conscientious men. These elements constitute the strongest canons of historicity.

The Bible teaching covers the whole range of ethical and religious truth purporting to be a divine revelation given throughout a definite period of history. In all this doctrinal teaching there is perfect harmony despite the fact that it was written by some forty different authors in different countries, throughout a period of about 1500 years. There is a modern tendency to deny this harmony and unity, but much of this is due to a failure to recognize that there is a progress of doctrine in the history of revelation. Some of this is due to a vicious habit on the part of some men of pitting the teachings of one writer against those of another and failing to recognize different circumstances, occasions, or modes of approach. Let us not approach the Bible by the inquisitional method; rather, let us enter sympathetically into what the several writers meant to teach, and we shall soon discover that apparent discrepancies will vanish. Among other great doctrines a profound unity is found in its teaching concerning God, the moral and spiritual nature of man, sin, salvation, Christian living, eternal life, etc.

The content of these truths and teachings has its source not in the human mind, but in God. Could a human mind conceive of the Holy Trinity both as to its mode of existence and its mode of operation in the world? Or of the atonement and the plan of salva-

tion through faith? A human mind could conceive only of a scheme of salvation by merit. What human mind could produce an ethical system that is absolutely unimpeachable? What human reason could have given us the sublime Christian view of eternal life?

The central evidence, proof of all proofs, that the Christian Religion is true is found in the person and work of Christ. Human, divine, sinless, Messiah, Teacher of teachers, Redeemer and Saviour was He. Without parallel before or since.

Such is the nature of the evidences for the truth of the Christian Religion. If the religion of evolution is true, these must all prove false. There is no other alternative. But evidences such as these are indestructible. The Bible, its teachings, and manifested power are facts, and the history supporting its origin is unassailable.

(2) *It involves the truth of the Divine Inspiration of the Bible.* If the Biblical records are not historical, if the Books are of human origin, if the marvelous truths proceeded from the human mind only, then they are not God-breathed. But this is in direct opposition to what the Scriptures most assuredly teach. For great sections of the Old Testament there is the direct claim, "Thus saith the Lord," or "The Word of the Lord came unto." The Gospels record many of the words of Jesus. The Apostle Paul, referring especially to the Old Testament, declares that "every Scripture is inspired of God." For his own writings he claims divine authority. The author of the Epistle to the Hebrews makes this claim: "God, having of old time spoken unto the fathers in the prophets by divers portions and in divers manners,

hath at the end of these days spoken unto us in his Son." Peter, speaking especially of the prophetic scriptures, says, "No prophecy ever came by the will of man: but men spoke from God, being moved by the Holy Spirit." No Christian, having had an experimental knowledge of God, can surrender a fact that invalidates this experience. The religion of evolution has nothing to give as a substitute for the Inspired Book.

(3) *The question before us involves the fact of God's revealing activity.* Has God spoken or has He been eternally silent? This is the preëminent question of Christian Theism. There dare be no trifling with the issue, for no other alternative is possible. I have shown before that a revelation is both possible and probable, and that a Book is in existence which claims to be this revelation, having in support of its claims adequate evidence. I choose to accept the testimony of this evidence. All this is false if the Bible is a product of human evolution.

(4) *It involves the truth of a history of supernatural redeeming acts.* After the fall of our first parents, a plan of redemption was divinely inaugurated and executed throughout a long period of time. It was vouchsafed by words of grace and pardon and miraculous deeds. At every stage of history when a divine message was given, miracles served as credentials for the message. Herein is an adequate occasion for a supernatural act. Thus the redemption from Egypt, Elijah's vindication of Jehovah, Daniel's stand, and the advent of the Messiah mark periods in which miracles are especially predominant. The miracle of miracles was the incarnation and the crowning

acts of redemption were His death and resurrection. The issue here is not whether we can prove the truth of every miracle recorded in the Holy Writ; it is clearly and pointedly this: Have any miracles ever been performed in this world? It is the deep-seated conviction of the author that the idea of the impossibility of the miraculous and of the supernatural is solely the creation of man's mind. There is nothing in the belief in miracles that is inconsistent with a thoroughgoing Christian Theism. Christ did perform true miracles. If this is not true, then the Christian religion is a farce and the Christian Church, from Pentecost to the present, has been composed of innumerable victims of delusion. It is the valid conclusion of all Christendom that God did enter His universe to interject new laws (miracles) for the time being, in order to attest the authenticity of His messages or His messengers.

(5) *Evolution denies the Deity of Christ.* The religion of evolution cannot accept the idea of the incarnation of Deity; it claims that Jesus was only a human being. But the Church is built upon the foundation that Jesus is the Christ, the Son of the living God. If evolution be true, this foundation is gone and the Church falls. But "other foundation can no man lay than that which is laid, which is Jesus Christ." I cannot reject Him who loved me and gave Himself for me, who has spoken peace to my soul and has made His abode with me.

(6) *It denies the power of Christianity and the testimony of the Christian Church.* The religion of evolution cannot accept the Spirit's operation in the world, a work that has transformed millions of lives.

But this manifested power is a matter of history, whether evolutionists believe it or not. It has been the unswerving testimony of the Christian Church that the claims of the Bible are true. Christians in all ages have believed the doctrines of Holy Writ and have exemplified in their lives its teachings before the world.

(7) *It undermines the Christian's hope of the future.* The religion of evolution offers no sure hope for immortality. According to its logic we die like dogs. Certainly this religion is "of the earth, earthy." Is the Christian ready to give up his hope of heaven, the earnest of which he already possesses? "For we know that if the earthly house of our tabernacle be dissolved, we have a building from God, a house not made with hands, eternal in the heavens. For verily in this we groan, longing to be clothed upon with our habitation which is from heaven: if so be that being clothed we shall not be found naked. For indeed we that are in this tabernacle do groan, being burdened; not for that we would be unclothed, but that we would be clothed upon, that what is mortal may be swallowed up of life. Now he that wrought us for this very thing is God, who gave unto us the earnest of the Spirit."

May I appeal to evolutionists. Does not this hope, which is already experienced in part by Christians, far transcend the barren outlook furnished by the religion of evolution? I know that I am speaking much in terms not understood by evolutionists. Appeals to Christian experience may mean nothing to them, but let me urge that the same testimony comes from honest and intelligent people. Can not evolu-

tionists accept the testimony of such persons even though they have not experienced it? Possibly the most precious element of this experience is that just mentioned. Heaven is already a partial reality in our souls. This is the reason for the Christian's unwavering faith in immortality. Christian faith is not empty fancy. The object of Christian faith is God, who has given us the inner witness that we are His children. He has revealed Himself as just, righteous, and holy. We accept His words and promises to the extent of the integrity of His character. Since He has given us this word concerning a future eternal life, I believe it. His word is as true and certain as He is righteous.

In these seven issues lies my burden in this entire work. In my studies of the question, I became convinced that the theory of evolution is not merely a scientific inquiry, but is grounded deeply in philosophy and constitutes a more or less well-defined religion. The science of evolution is fallacious, its philosophy is unsound, and the religion built upon it is antagonistic to Revealed Religion.

It is no pleasure to the author to ascribe wrong motives to evolutionists, nor does he do so. But it appears at times that they reveal subjective prejudice in their writings. Will the evolutionist examine the following; if it is not true, pass it by; but if such has been the case, kindly read with care the appended words of Christ.

It has appeared that evolutionists have denied the authority and inspiration of the Bible because the Book condemns sin and teaches of a judgment and eternal punishment to follow. If the Bible is not God's book, then man has no absolute external authority to

control him. It is safe to sin and do unrighteousness, for death ends all. There is then no hell to terrify us, for fear of which we should turn from our evil ways. But let me append here the solemn claims and warning of the Son of God: "He that believeth on me, believeth not on me, but on him that sent me. And he that beholdeth me beholdeth him that sent me. I am come a light unto the world, that whosoever believeth on me may not abide in the darkness. And if any man hear my sayings, and keep them not, I judge him not; for I came not to judge the world, but to save the world. He that rejecteth me and receiveth not my sayings, hath one that judgeth him: the word that I spake, the same shall judge him in the last day. For I spake not from myself; but the Father that sent me, he hath given me a commandment, what I should say, and what I should speak. And I know that his commandment is life eternal; the things therefore which I speak, even as the Father hath said unto me, so I speak." Jno. 12:44-50. A. R. V.

Chapter X

THE CHRISTIAN WORLD VIEW

Throughout the first seven chapters of this work, the data furnished by the Bible on the vital problems discussed were not appealed to because the origin of the Book was one of the subjects involved. Now since its divine origin has been established, we can look with assurance into its pages for its beautiful, sublime and profound teachings on these absorbing topics. The Christian World View is worthy of respect and of closest scrutiny, and it is the conviction of the author that this view satisfies all the data furnished by science, it agrees with our best philosophic intuition, and finally it is in accord with Revealed Religion.

I. IN THE BEGINNING GOD

The investigations of science in all of its departments cannot revert in time to the origin of things. Its work reaches its limits when it has described all the existing data, discovered the laws according to which they operate, and classified the facts obtained. But the ultimate beginning of things, if they had a beginning, is left unsolved. Philosophy approached these problems, and, as we have seen, has built up a line of reasoning which satisfies the heart and seems to be conclusive. Our best philosophic intuition, supported by cumulative proofs having their basis in the existing world order, show that the universe is not

eternal, but had a beginning in the fiat of some adequate cause. It further concludes that this first cause had intelligence, had a moral nature, and exercises a wise and beneficent rule over the world.

All this harmonizes with the Holy Scriptures. The Bible is preëminently a theistic book. It reveals God on its first pages, yes, in its first sentence, as the Creator of the Universe. He exercises control of His universe and of man in it. When man sinned, He entered into His creation, and dealt with the transgressor according to justice, righteousness and mercy. This sin on the part of our first parents gives the occasion, then, of a prolonged self-revealing activity of God. We learn that sin is an offense against His holy nature, that forgiveness can be obtained when atonement has been made for sin. Throughout the Scriptures His attributes are revealed in ever-increasing fulness. The prophetic utterances spoken through His appointed spokesmen reveal the fact that the future is as clearly known to Him as the present. His knowledge has no bounds. He inspired one of His servants to speak thus of the eternity of the God-head:

“Lord, thou hast been our dwelling-place
In all generations.
Before the mountains were brought forth,
Or ever thou hadst formed the earth and the
world,
Even from everlasting to everlasting, thou art
God.”¹

The same penman caught a vision of God's om-

¹ Psalm 90:1, 2. A. R. V.

nipotence and at the same time of the supreme dignity of man's position as expressed in the words:

“When I consider thy heavens, the work of thy fingers,
The moon and the stars, which thou hast ordained;
What is man, that thou art mindful of him?
And the son of man, that thou visitest him?
For thou hast made him but little lower than
God (the angels *margin*),
And crownest him with glory and honor.”²

The sweet singer of Israel again portrays various attributes of God in the sublime words:

“The heavens declare the glory of God;
And the firmament showeth his handiwork.
Day unto day uttereth speech,
And night unto night showeth knowledge.

* * * * *

The law of Jehovah is perfect, restoring the soul:

The testimony of Jehovah is sure, making wise the simple.

The precepts of Jehovah are right, rejoicing the heart:

The commandment of Jehovah is pure, enlightening the eyes.

The fear of Jehovah is clean, enduring forever:

The ordinances of Jehovah are true, and righteous altogether.”³

² Psalm 8:3-5. A. R. V.

³ Psalm 19:1-9. A. R. V.

The unaided human mind never could have invented such a lofty view of God. These sublime descriptions of Him and His works are commensurate with our idea of what the person and work of that One must be. No finite God could satisfy. We rest in perfect composure in the teaching of the Bible. The following points find their ultimate support in Christian Theism:

II. THE CREATION

It has been very painful and disappointing to read some of the caricatures of the Genesiac account of creation; for it has appeared at times that certain writers are unwilling to allow the Sacred Book to speak for itself. On the other hand, it is refreshing and soul-satisfying to read such a work as "The Problem of Origins" by Dr. L. S. Keyser, a genuine scholar, who sets forth the infinite sublimity and profundity of that sacred narrative.

One feels like asking at times: What kind of account of creation would the human mind desire to have? Surely one that would be adequate for all time and for all nations and races in all stages of enlightenment. Certainly it should be simple. Who would want it to be burdened with scientific technicalities, especially since their terminology is ever changing? It seems puerile for man to set up his own standard of what this account must measure up to before he has fathomed the depths of that which does exist. This narrative possesses a quality that seems to be unique to the Christian Scriptures. A child can read and understand it, and yet the most learned scholar recognizes ever increasing treasures within its storehouse.

"In the beginning God created the heavens and the earth." What more need we know? Who has a right to demand a knowledge of the extent of the universe which was created? When the race was young, this truth carried a rich meaning, but was limited by the vision of the natural eye. To-day God has entrusted to mankind knowledge of how to bring near the almost infinitely distant worlds through powerful telescopes, and to enlarge the infinitesimally small worlds with the microscope, and through other means we have learned the nature of these worlds that lie beyond our natural vision as well as those worlds that are contained in the smallest particle of matter. Accordingly, our understanding of this verse has become profounder. But still the fundamental truth remains: God created the heavens and the earth.

God spoke the word and there was light. If God used means and processes to execute this word, what need have we to know them? Could our finite minds comprehend the operation of the infinite? The word was spoken and light appeared; this is the fundamental truth. It is not shrouded in the mists of mythology, polytheism or animism. The division of the light from darkness marks the distinction between day and night. One day of creation was completed.

In a second creative day "God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament." The unorganized creation of the first day is now being given definite form and place. Does not the account proceed in a logical and systematic order?

After gathering the waters under the heavens unto one place so that the dry land appears, God

causes the earth to "put forth grass, herbs yielding seed, and fruit trees bearing fruit after their kind," and it was so. Looking upon this third day of creation the Creator saw that it was good. Among other points of interest, one of extraordinary moment is the expression, "after their kind," which occurs several times throughout the chapter. This statement interpreted at its face value means that by creation the species of plants and animals were fixed. Life is not in a state of flux. Thus in the first chapter of Genesis the fundamental conception of evolution is repudiated. Stability of life forms has existed from the creation. It will be recalled that true science is in harmony with this point. Life as we know it is not undergoing constant change, nor does true geology support the evolutionary theory concerning the past.

On a fourth day of creation God placed lights in the firmament of heaven, the sun and the moon. He made the stars also. Scientists are engaging in a great deal of speculation when they claim that stars are yet being formed and that they vary greatly in age. Obviously, there can be no proof of such speculation. We are on *terra firma* if we believe that the heavenly bodies were brought into existence on this fourth day. Further, let us observe that these lights had as part of their function the determination of the fundamental time relations. God said: "Let there be lights . . . to divide the day from the night; and let them be for signs, and for seasons, and for days and years." How scientifically true this is verified by the modern method of receiving our time from the movements of the heavenly bodies. How accurately the stars move in their courses!

The multitudinous forms of animal *life* that *live* in the water, as well as that of the birds, were created on the fifth day, and on the sixth, land animals were brought into existence. But on this last day a being is created in the image and likeness of God, and is given dominion over the rest of creation. He, like the animals, is formed out of the dust of the ground. How wonderfully does true science harmonize with this account! Man made from the dust of the ground! The dead body soon returns to the dust. But is man a mere animal? True science shows that an unbridgeable gulf is fixed between man and brute. Self-consciousness, self-determination, a moral and spiritual nature; in a word, human personality—these constitute that great difference between human and bestial existence. The Scriptures define this divine image in man as consisting of knowledge, righteousness and true holiness (Eph. 4:24; Col. 3:10). It has often come to the mind of the author that if the views of Christians and evolutionists were exchanged, the evolutionists would hoot at those who hold such a low view of man's nature. Christians would be called ignoramuses for linking together man and beast as blood relatives for the slender reasons that some physical resemblances appear. But how truly accurate is this Biblical record which places a supreme dignity upon man and denies all kinship with the brute!

"And God saw everything that He had made, and, behold it was very good." This is the verdict of the Creator upon His work. On what grounds can one deny the truthfulness of a record such as this?

"Therefore shall a man leave his father and his mother, and shall cleave unto his wife: and they shall

be one flesh." Thus was it in the beginning. Woman was the equal of man. Monogamy was the divinely instituted order of marriage, and it was indissoluble. In a later age because of the hardness of the people's hearts these standards were lowered. But God's order still stands. Compared with this beautiful Biblical record, the evolutionary view of marriage both as to its origin and its present status is revolting and repugnant. In the Biblical view of marriage and home-life alone do we have the foundations of a secure and permanent society? Would that the twentieth century world would believe and practice this doctrine!

III. THE ORIGIN OF SIN AND SUFFERING

The origin of sin and suffering has always baffled evolutionists, and their solution of the problem has been exceedingly unsatisfactory. Sin is toned down and defined as an unnecessary vestige of our brute nature. Suffering is a result of the struggle for existence.

On the other hand, the Bible gives an adequate and profound solution. Our first parents were constituted by creation free moral agents and without sin. Placed in a garden to dress and keep it and given a few divine commands and a single restriction, our first parents at the instigation of the Evil One chose to disobey God. Sin is transgression of God's law. This revolt of our parents against their Creator plunged the race into guilt and depravity. How this sin is imputed to the race may be a theological problem, but the fact of inheritance is an experience common to the race. Every child shows this inborn depravity, and at a certain age feels the guilt of sin resting upon him.

Suffering follows in the wake of sin. Erroneous is that tendency among some thinkers who censure God for allowing suffering. In true humility it should be admitted that the human race itself is responsible for all the suffering that exists.

It is admitted that certain problems arise on this subject **which cannot be fully answered**. But in leaving them unsolved the heart is not left unsatisfied. The Christian has found that the Bible attributes to God a holy character. **He is just, righteous, and merciful**, and his experience with Him has verified these **divine perfections**. **This being true**, he can allow the problems to remain unsolved because God can be trusted. Will we doubt His word when through experience we have found Him faithful in all things? This simple faith is expressed by the Apostle Paul: "For I reckon that the sufferings of this present time are not worthy to be compared with the glory which shall be revealed to usward." Rom. 8:18. Grounded upon an intimate knowledge of God, he could add a little farther on, "And we know that to them that love God all things work together for good, even to them that are called according to his purpose."

In addition to these testimonies of the Word and Christian experience, the problems find further solution in the goal of the whole redemptive plan. In the atonement of Jesus Christ there is salvation from sin; the soul enjoys peace which "passeth all understanding"; they that believe have passed from death unto life; sin and suffering will cease with this earthly life, and in the new heavens and the new earth there will be greater joy than Eden had in store. Who then can impeach God's all-wise actions? Who can refrain

from joining with Paul in his exultation, "O the depth of the riches both of the wisdom and the knowledge of God! how unsearchable are his judgments, and his ways past tracing out! For who hath known the mind of the Lord? or who hath been his counsellor? or who hath first given to him, and it shall be recompensed unto him again? For of him and through him, and unto him are all things?" Rom. 11:33-36. A. R. V.

IV. THE GOD-MAN

"What think ye of the Christ? whose son is he?" It has been observed in a former chapter that evolution's evaluation of the Christ is wrong and debasing. Despite the many beautiful words that evolutionary writers may say concerning Him, they cast a shadow upon the birth of the Founder of the Christian Religion.

On the other hand, the sacred narratives pour a flood of glory about His holy birth. Here the sanctity of marriage and the purity of conjugal relations are held forth in perfect harmony with the indefectible standard upheld by the Scriptures. So important was it in the mind of God to remove all cause of suspicion and doubt that angelic annunciations were given to both Mary and Joseph, apprising them of the sacred nature of the things that were to take place.

Jesus is God manifest in the flesh. The incarnation is the miracle of miracles. Its significance in relation to the whole question of evolution is far-reaching. In the first place, man was so constituted that God could take upon Himself the form of man. This gives testimony to the supreme dignity of man's nature, and points to a higher origin than evolution can give. In

other words, man bears kinship with God and not with the brute. We all are sons of Adam, and Adam was the son of God (Lk. 3:38). In the second place, the incarnation accounts adequately for the miracles performed by Christ, for His sinlessness, for His incomparable teachings, for His Messianic consciousness, and for His resurrection. Evolution is impotent in the presence of these facts.

V. THE GOAL OF THE CHRISTIAN WORLD VIEW

This view gives adequate assurance of a definite goal toward which God is bringing the universe. Evolution, on the other hand, can give no assurance of any goal, whatever, much less does it have any power to carry the universe forward to whatever goal it may have. The goal of evolution cannot transcend this sin-burdened world. There is no alleviation of earth's crushing sorrows. No buoyant hope can stir the breast because death ends all. All effort ends in despair. Some other scion of life may drive the *genus homo* from the field, and human existence will be no more. How hopeless an outlook! How inglorious a future!

But ponder the glory foretold by the Christian revelation:

"For the earnest expectation of the creation waiteth for the revealing of the sons of God. For the creation was subjected to vanity, not of its own will, but by reason of him who subjected it, in hope that the creation itself also shall be delivered from the bondage of corruption into the liberty of the glory of the children of God." Rom. 8:19-21. A. R. V.

"Behold, I tell you a mystery: We all shall not sleep, but we shall all be changed in a moment, in the twinkling of an eye, at the last trump: for the trumpet shall sound, and the dead shall be raised incorruptible, and we shall be changed. For this corruptible must put on incorruption, and this mortal must put on immortality. But when this corruptible shall have put on incorruption, and this mortal shall have put on immortality, then shall come to pass the saying that is written, Death is swallowed up in victory. O death, where is thy victory? O death where is thy sting?" I Cor. 15:51-55. A. R. V.

"For we know that if the earthly house of our tabernacle be dissolved, we have a building from God, a house not made with hands, eternal in the heavens. For verily in this we groan, longing to be clothed upon with our habitation which is from heaven." II Cor. 5:1, 2. A. R. V.

"And I saw a new heaven and a new earth: for the first heaven and the first earth are passed away; and the sea is no more. And I saw the holy city, new Jerusalem, coming down out of heaven from God, made ready as a bride adorned for her husband. And I heard a great voice out of the throne saying, Behold, the tabernacle of God is with men, and he shall dwell with them, and they shall be his peoples, and God himself shall be with them, and be their God: and he shall wipe away every tear from their eyes; and death shall be no more; neither shall there be mourning, nor crying, nor pain, anymore: the first things are passed away." Rev. 21:1-4. A. R. V.

In bringing this work to a close, I would fain repeat that the theory of evolution stands diamet-

rically opposed to the Christian world view. The two are absolutely incompatible and mutually exclusive. True science, sound philosophy, and the Christian Religion unite in the condemnation of this mistaken view of the world. The position that still governs our thinking, that satisfies our heart and soul, that stands invulnerable against all assault, that gives us security in the present life, that affords a sure hope for the life to come, is the theistic and Christian view of God and the world.

THE END

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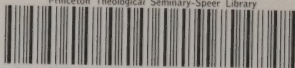
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